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Announcement to ASX **17 August 2020**

GRANT OF OFFSHORE PERTH BASIN EXPLORATION LICENSE RENEWAL

Pilot Energy Limited (ASX: PGY) (**Pilot Energy**, or the **Company**) is pleased to announce that the Australian Government National Offshore Petroleum Titles Administrator (NOPTA) on behalf of the Delegates of the Commonwealth-Western Australia Offshore Petroleum Joint Authority has advised the Company that Petroleum Exploration Permit WA-481-P has been renewed for a term of five years.

Pilot Energy is the majority owner (60%) and operator of WA-481-P (see attached map) covers 130 graticular blocks and is the largest offshore exploration permit covering most of the offshore portion of the North Perth Basin extending from North of Oakajee, Western Australia to south of Cervantes, Western Australia covering approximately 200 km of the offshore Western Australian coast.

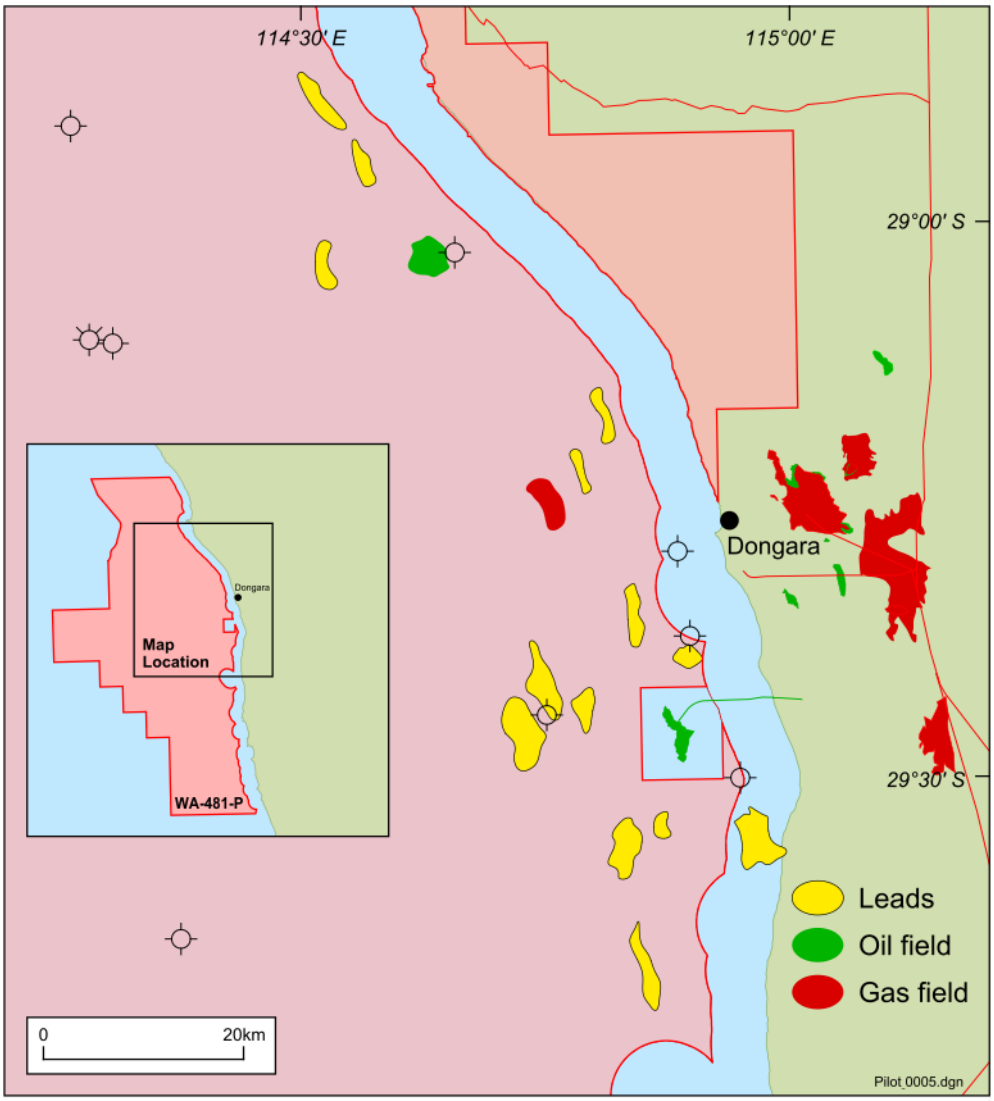
Renewal of WA-481-P comes with a moderate 5-year work program as set out in Attachment 1 with geological and geophysical studies, 2D seismic reprocessing and 2D and 3D seismic acquisition in Permit Years 1 through 3 for a total expenditure of $5.75 million (Pilot Energy share $3.45 million) and one exploration well in Permit Year 5.

WA-481-P covers a very large area over the offshore extension of the Northern Perth Basin, on trend with numerous oil and gas discoveries. The primary petroleum plays are for oil and/or gas within the Dongara Sandstone and the Irwin River Coal Measures. Both oil and gas are proven within the permit, with the Frankland gas and the Dunsborough oil discoveries representing 2C contingent resources of 41.6 Bcf gas and 6.0 MMBbls oil respectively (see Reserves and Resources Statement below).

WA-481-P is well covered by both 3D and 2D seismic data, which confirms the presence of fourteen structural prospects across a variety of geological plays, three of which have been identified as priority targets for future exploration.

The Frankland gas play lies on trend with the Frankland-1 gas discovery, which has estimated 2C contingent resources of 41.6 Bcf gas (see Reserves and Resources Statement below). Three further structures are located to the northeast of Frankland-1, offering the potential to increase the resource base. Importantly this play has been largely de-risked by the Frankland-1 well, and the Company will review the recently completed seismic inversion study of the Diana 3D data in order to further de-risk the prospects. In the event of future exploration success, commercialisation of two or more fields could occur as a hub, tied back to the onshore Dongara gas facility, located some 20km to the east.

The Cliff Head South play incorporates two structural prospects, both of which lie to the south and west of the Cliff Head oil field. These prospects are of a comparable size to Cliff Head itself and are situated between Cliff Head and the hydrocarbon source kitchen to the west. The oil within Cliff Head would have migrated directly through this area, resulting in a high probability for oil charge into the prospects. While the prospects are large, even a small discovery could likely be developed, by tying back to the Cliff Head offshore facility approximately 10km to the northeast. (see leads and prospects map below).



Note: Map insert is based on WA- 481-P area prior to the renewal. Refer "Offshore Exploration Permit WA-481-P Pilot Energy Limited (60%) and Operator" map for the revised permit area.

Finally, the Leander Reef area offers potential for very large accumulations of oil. Three large structures exist to the west of Cliff Head, with a total Best estimate Prospective Resource across the 3 structures of 98 MMBbls oil (see Reserves and Resources Statement below). These estimated quantities of petroleum that may potentially be recovered by the application of future development projects(s), relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration and appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

While the Leander Reef-1 well was drilled in the area in 1983, the structures remain untested. This is due to the fact that the well intersected a fault at a location where the Dongara reservoir target has been "faulted out" - i.e. reservoir was absent due to movement on the fault. However, oil and gas shows were encountered by the well, and while currently higher risk than the Frankland and Cliff Head plays, the Leander Reef area warrants further study as a possible future drilling target due to the huge upside potential.

Business Update

Pilot, consistent with its earlier announced strategy, is considering a number of corporate transactions and organic growth opportunities leveraging existing asset positions. These transactions and organic growth opportunities represent incomplete and non-binding proposals and are not in form that can either be accepted by the Pilot board or put to Pilot shareholders (if required). Pilot will continue to keep the market apprised of any developments as and when required.

Reserves & Resources Statement

The Reserves, Contingent Resources and Prospective Resources Statements provided above are to be found in the RISC Independent Technical Specialist Report dated May 2017 which was released on the ASX on 13 June 2017 as part of the Notice of General Meeting and Explanatory Memorandum for the General Meeting of the Company held on 12 July 2017. The RISC Independent Technical Specialist Report is Appendix 3 to the Notice of Meeting and is to be found starting at page 63 and continuing through page 139 of the Notice of Meeting. A copy the RISC Independent Technical Specialist Report accompanying the Notice of Meeting i attached to this announcement as Attachment 2.

As provided on page 3 and Section 9 of the attached RISC Independent Technical Specialist Report, the Contingent and Prospective Resources provided above have been prepared on a probabilistic basis. The Company also confirms that it is not aware of any new information or data that materially affects the information included in the attached RISC Independent Technical Specialist Report and that all the material assumptions and technical parameters underpinning the estimates in the attached RISC Independent Technical Specialist Report continue to apply and have not materially changed'

Competent Persons Statement

This announcement contains information on conventional petroleum resources which is based on and fairly represents information and supporting documentation (including the RISC Independent Technical Specialist Report which accompanied the Notice of General Meeting and Explanatory Memorandum lodged with the ASX on 13 June 2017) reviewed by Dr Xingjin Wang, a Petroleum Engineer with over 30 years' experience and a Master in petroleum engineering from the University of New South Wales and a PhD in applied Geology from the University of New South Wales. Dr Wang is an active member of the SPE and PESA and is qualified in accordance with ASX listing rule 5.1. He is a former Director of Pilot Energy Ltd and has consented to the inclusion of this information in the form and context to which it appears.

Pilot's Chairman, Brad Lingo, said "The Company sees the renewal of WA-481-P as highly complementary to the Company's strategy to focus on gas, storage and renewables. With the very large conventional gas discoveries made in the North Perth Basin over the last 3 years in onshore areas of the North Perth Basin and historical oil and gas discoveries made immediately adjacent to the permit this is leading to a reinvigorated focus on the overall potential of the North Perth Basin."

"The permit also is very favourably located within an area with significant renewable energy potential and Pilot's existing footprint and operatorship of WA-481-P and shareholder and experience base provides a unique opportunity to participate in the energy transition focussing on both the gas potential within WA-481-P but also to combine this with a focus on the renewable energy potential of the area," Mr. Lingo added.

"As the Company previously announced, we believe that the Company has the unique opportunity to bring together and integrate three critical platforms to execute the necessary energy firming solutions essential to the successful delivery of the energy transition".

"Focussing on the energy transition provides the opportunity to deliver strong growth and significant shareholder value".

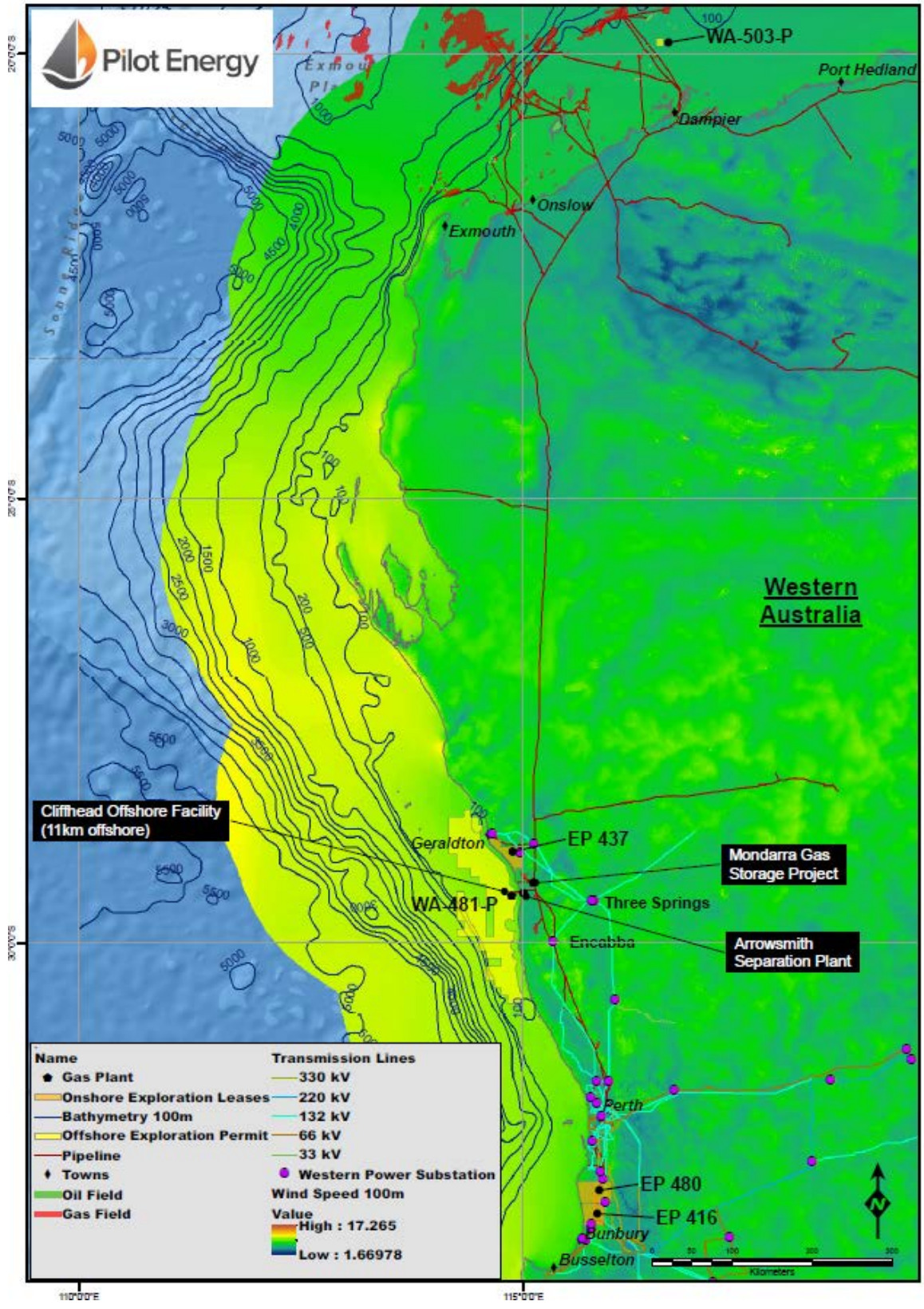
This announcement has been authorised for release to ASX by the Board of Directors of Pilot Energy.

Enquiries

Lisa Dadswell, Company Secretary, email: lisa.dadswell@boardroomlimited.com.au

About Pilot Energy: Pilot Energy Ltd is an emerging junior oil and gas exploration company that is implementing a low-cost, counter-cyclical strategy to develop a portfolio of high quality oil and gas exploration assets. The Company's aggressive new ventures program has rapidly resulted in acquisition of material working interests in the WA-481-P, WA-507-P, WA-503-P and EP416/480 exploration permits, located offshore and onshore Western Australia, in addition to a minor working interest in the EP437 permit. Key to Pilot Energy's strategy is minimisation of project entry cost and work commitments, while allowing sufficient time to add value through desktop studies prior to seeking farming partners to fund seismic and/or drilling. Pilot Energy works closely with industry partners such as seismic contractors in order to develop creative pricing models for services that help to reduce the Company's upfront cash investment.

Offshore Exploration Permit WA-481-P
Pilot Energy Limited (60%) and Operator



Attachment 1

Offshore Exploration Permit WA-481-P

Minimum Work Program

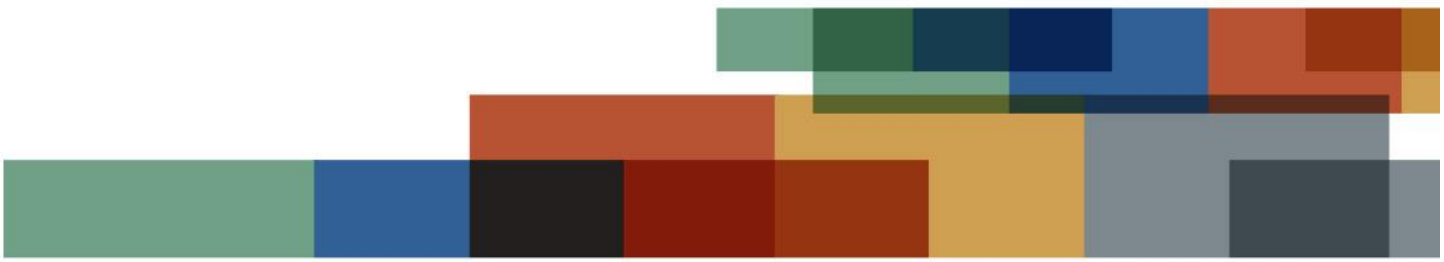
Year	Permit Year Starts	Permit Year Ends	Minimum Work Requirements	Indicative Expenditure $A
1-3	13/08/2020	12/08/2023	2000 km 2D PSDM reprocessing	200,000
			Geological and geophysical studies	150,000
			350 km^2 new 3D seismic acquisition and PSDM processing	5,000,000
			200 km new 3D seismic acquisition and PSDM processing	400,000
4	13/08/2023	12/08/2024	Geological and geophysical studies	150,000
			Well planning	300,000
5	13/08/2024	12/08/2025	Drill one exploration well	15,000,000

ATTACHMENT 2

Independent Technical Specialist Report

Pilot Energy Ltd – Australian Exploration Assets

May 2017



decisions with confidence

1. Executive Summary

The Directors
Pilot Energy Ltd
Level 2, 55 Carrington Street
Nedlands WA 6009

Mr Sherif Andrawes
BDO Corporate Finance (WA) Pty Ltd
38 Station Street
Subiaco WA 6008

Dear Sirs

INDEPENDENT TECHNICAL SPECIALIST'S REPORT ON PILOT ENERGY'S AUSTRALIAN EXPLORATION ASSETS

Pilot Energy Ltd ("Pilot") has announced a share placement to a new investor and has appointed BDO Corporate Finance (WA) Pty Ltd ("BDO Corporate Finance") as the Independent Expert to provide an opinion on the value of the company and its assets. To assist BDO Corporate Finance in preparing its valuation of the transaction, Pilot engaged RISC Operations Pty Ltd ("RISC") to prepare an Independent Technical Specialist Report (ITSR) of Pilot's interests in their Australian exploration assets located offshore in the Northern Carnarvon Basin and Northern Perth Basin, and onshore in both the South and North Perth basins. This document comprises the ITSR.

The location of Pilot Energy's Australian permits and tenement details are shown in Figure 1-1 and Table 1-1. Two offshore permits, WA-507-P and WA-503-P, are located in the Northern Carnarvon Basin, with a third offshore permit located in the northern Perth Basin. The onshore permits are located in the Perth Basin with the two, adjacent permits EP-416 and EP-480 in the southern Perth Basin and EP-437 in the northern Perth Basin.

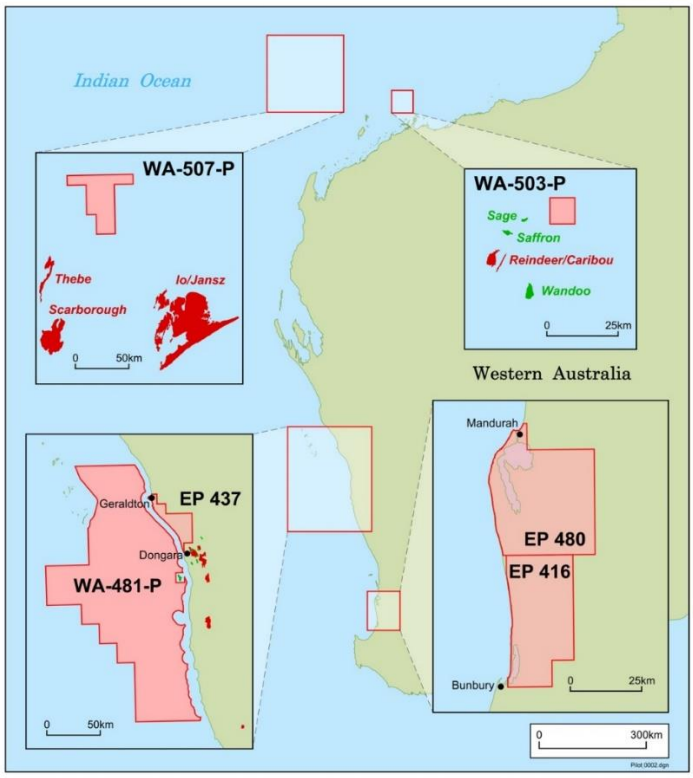


Figure 1-1: Location Map – Pilot's Australian permits

The WA-507-P and WA-503-P offshore permits are located in the highly prospective and proven Northern Carnarvon Basin with the deep water block WA-507-P, located close to major gas discoveries at Scarborough, Thebe and Io/Jansz. The shallow water block WA-503-P is on trend with the Legendre oil field to the northeast and the Caribou gas field to the southwest. The permits are under explored with WA-507-P having one well, Dalia South-1 drilled by Woodside in 2010 and WA-503-P having two wells, Orion-1 (1990) by Woodside and Janus-1 (1997) by Apache. The WA-481-P offshore permit covers a large portion of the offshore extension of the North Perth Basin, on trend with the Cliff Head oil field and numerous onshore oil and gas discoveries.

The onshore permits are also sparsely explored with three wells in the southern Perth Basin permits, Pinjara-1(1965) and Preston-1 (1966) drilled by Wapet and GSWA Harvey-1 (2012) drilled by the Geological Survey of WA. The northern Perth Basin permit has had more drilling with over 20 wells but the vast majority of the exploration drilling was for very shallow targets of less than 1,000m, drilled in the 1960's and 1980's. The Dunnart-2 well is the most recent drilling in 2014 but again the TD of the well was less than 1,000m at 657m.

Table 1-1: Pilot Energy Tenement Summary

Permit Name	Type	Granted Date	Expiry Date	Area	Pilot Interest	Operator
				km2	%	
WA-507-P	Exploration	17/11/2014	16/11/2020	1,662	80	Pilot
WA-503-P	Exploration	14/5/2014	13/5/2020*	80	80	Pilot
WA-481-P	Exploration	20/8/2012	19/8/2019	17,745	60	Pilot
EP480	Exploration	6/6/2012	31/3/2020	2310	60	Pilot
EP416	Exploration	14/10/2016	13/10/2021		60	Pilot
EP437	Exploration	6/6/2012	13/11/2019	720	13.058	Key Petroleum

Contingent Resources

Pilot added Contingent Resources to its portfolio when it acquired WA-481-P from Murphy Oil in July 2016. Two discoveries have been made in the permit; the Dunsborough oil discovery and the Frankland gas discovery, neither are currently commercially viable on a standalone basis.

Pilot has estimated the gas and oil Contingent Resources using probabilistic methods that RISC has reviewed and found that Pilot's estimates are reasonable. The Contingent Resource estimates are shown in Table 1-2 and Table 1-3.

Table 1-2: Pilot's WA-481-P Contingent Oil Resources as at 18 May 2017

Accumulation	Contingent Resources MMbbl		
	1C	2C	3C
Dunsborough Total Gross (100%)	3.3	6.0	9.8
Net attributable to Pilot (60% WI)	2.0	3.6	5.9

Notes:

1. "Gross" are 100% of the resources attributable to the licence.
2. "Net attributable to Pilot (60% WI)" based on Pilot's current working interest.
3. Note arithmetic aggregation of the Resources in the Dongara and IRCM reservoirs, as a result RISC cautions that the 1C aggregate quantities may be very conservative estimates and the 3C aggregate quantities may be very optimistic due to portfolio effects.

Table 1-3: Pilot's WA-481-P Contingent Gas Resources as at 18 May 2017

Accumulation	Contingent Resources Bcf		
	1C	2C	3C
Frankland Total Gross (100%)	29.4	41.6	58.9
Net attributable to Pilot (60% WI)	17.6	25.0	35.3

Notes:

1. "Gross" are 100% of the resources attributable to the licence.
2. "Net attributable to Pilot (60% WI)" based on Pilot's current working interest.
3. Note arithmetic aggregation of the Resources in the Dongara and IRCM reservoirs, as a result RISC cautions that the 1C aggregate quantities may be very conservative estimates and the 3C aggregate quantities may be very optimistic due to portfolio effects.

Prospective Resources

RISC has carried out a review of the independent prospective resource estimates for the offshore Carnarvon Basin permits estimated by Gaffney Cline and Associates (GCA) and the offshore and onshore permits in the Perth Basin by Pilot Energy and we consider them to be reasonable. The Best estimate, oil prospective resources net to Pilot of 1,431 MMbbl (Table 1-4) and the Best estimate gas prospective resources net to Pilot of 8,500 Bcf (Table 1-5). The majority of the net prospective oil resources are in WA-507-P (1,265 MMbbls) which are estimated as an alternative and mutually exclusive case to the gas case in Table 1-5 below. In the event that hydrocarbons are found in WA-507-P (GPOS 16-18%), RISC believes that there is likely to be a mixture of gas and oil with the majority being gas.

Table 1-4: Oil Portfolio Prospective Resources as at 18 May 2017

Permit	Gross (100%) MMbbl			Net to Pilot MMbbl		
	Low	Best	High	Low	Best	High
WA-507-P	604	1,581	3,600	483	1,265	2,880
WA-503-P	16	46	106	13	37	85
WA-481-P	120	216	374	72	130	224
EP437	0.2	1.4	6.1	0.0	0.2	0.8
Total	740	1844	4086	568	1431	3190

1. Probabilistic methods have been used. Totals may differ due to rounding.
2. For WA-507-P the quoted prospective resources are the arithmetic sum of the three prospects identified by Pilot and independently assessed by GCA as at 31 January 2015. The prospects are prospective for oil and gas, or a combination of oil and gas.
3. For WA-503-P the quoted prospective resources are the arithmetic sum of the three prospects identified by Pilot and are the estimates of a review carried out by GCA as at 30 November 2015.
4. For WA-481-P the quoted prospective resources are the arithmetic sum of six prospects identified and estimated by Pilot and provided for RISC to review for this report.
5. EP 437 Prospective Resources have been provided by the operator, Key Petroleum and RISC has not been able to verify the accuracy of these estimates. They are insignificant in the portfolio.
6. The aggregate Low estimate may be a very conservative estimate and the aggregate High estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.
7. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.
8. The volumes are rounded to the nearest million barrels

Table 1-5: Gas Portfolio Prospective Resources as at 18 May 2017

Permit	Gross (100%) Bcf			Net Pilot Bcf		
	Low	Best	High	Low	Best	High
WA-507-P	4,030	10,047	21,099	3,224	8,037	16,879
WA-481-P	28	46	70	17	27	42
EP416/EP481	270	725	1595	162	435	957
Total	4,328	10,818	22,764	3,403	8,500	17,878

1. Probabilistic methods have been used. Totals may differ due to rounding.
2. For WA-507-P the quoted prospective resources are the arithmetic sum of the three prospects identified by Pilot and individually assessed by GCA as at 31st January 2015. The prospects are prospective for oil and gas. The gas case alternative is the most likely case. The two cases are mutually exclusive.
3. For WA-481-P the quoted prospective resources are the arithmetic sum of the two prospects with two reservoirs identified and estimated by Pilot, Frankland NE and Frankland NE2.
4. For EP-416/480 the quoted prospective resources are the arithmetic sum of the two reservoirs within the Leschenault Prospect identified by Pilot and have been audited by RISC in October 2016.
5. The aggregate Low estimate may be a very conservative estimate and the aggregate high estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.
6. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.
7. The volumes are rounded to the nearest Bcf

Valuation

The Pilot permits are all early stage exploration properties. RISC has therefore used notional farm-in terms by a farminee into the assets to estimate a market value under the requirements of the VALMIN code. The values have been benchmarked by comparable transactions, where they exist.

Notional farm-in values are based on the promote/premium an incoming party (the farminee) is prepared to pay the farminor for their equity. For example, a promote factor of 2 for 1 implies a 100% premium on the farminor's equity share of the future exploration costs and carries the farminor through those exploration costs. The market value, therefore to the farminor, is the value of the share of its costs that are being carried by the farminee. In the current depressed market RISC has generally used a range of 1.15 - 1.75 to 1 promote on drilling expenditures (15%-75% uplift) and up to 4 to 1 for the initial lower cost exploration costs that give an option to participate in a well at 1 for 1 (no promote).

The values of the permits have been determined at low, mid and high values. As the low and high values of the exploration assets portfolio are derived by the arithmetic addition of the individual asset low and high values, respectively, they represent the possible extremes of the exploration value envelop. While farminees into the individual permits could value the assets at either end of the value range assessed, it is unlikely that potential buyers of the exploration asset portfolio would value all of the assets at either all of the low or all of the high estimated extremes. Their own assessments of individual permits will span the low, mid or high outcomes based on factors including: their strategic objectives and region or geological basin focus; assessment of an asset's prospectivity and associated geological risks; the fiscal and regulatory framework applicable to the asset; accessibility of commercialisation routes, including markets and infrastructure, for

each asset; equity interests, operator capability and joint venture partners in each asset. RISC has determined the low and high values of the portfolio of exploration assets at an estimated one standard deviation from the total mid value of the portfolio.

Table 1-6: Valuation Summary

Exploration Assets	Equity Interest %	Valuation (US$ million)		
		Low	Mid	High
WA-507-P	80%	2.9	10.0	15.0
WA-503-P	80%	0.6	1.2	9.0
WA-481-P	60%	1.2	5.1	7.7
EP416 & EP480	60%	0.7	1.2	3.6
EP437	13.058%	0.03	0.05	0.14
Total Pilot Permit Value		5.4	17.6	35.4
Pilot Early Stage Exploration Portfolio Valuation Range		12.6	17.6	22.6

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2. Basis of assessment

2.1. Terms of Reference

RISC is acting as an independent technical specialist to BDO Corporate Finance as defined in the Code for Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports, as amended (the VALMIN Code, 2015 Edition).

BDO Corporate Finance has requested that RISC carry out the following scope of work:

- To review the exploration licenses and their hydrocarbon potential and form a view on the fair market value of the Assets by:
  - Reviewing the general prospectivity and identified leads and prospects and their prospective resources estimates and the range of uncertainty attributable to the estimates and their risking;
  - Reviewing the status of the committed work programs, variations sought to the work programs, outstanding liabilities and farmout intentions;
  - Reviewing exploration program costs for seismic and wells;
  - Stating the Assets' fiscal terms.
- Estimate the range of fair market value of the Company's interest in the Assets taking into account commitments, recent relevant transaction data; market factors and project risks.

The data and information used in the preparation of this report were provided by Pilot and supplemented by public domain information. RISC has relied upon the information provided and has undertaken the evaluation on the basis of a review and audit of existing interpretations and assessments as supplied making adjustments that in our judgment were necessary.

RISC has reviewed the prospective and contingent resources in accordance with the Society of Petroleum Engineers internationally recognised Petroleum Resources Management System (SPE-PRMS).

Unless otherwise stated, all costs and values are in US$ real terms with a reference date of 1 May 2017.

2.2. Exploration permit valuation

The valuation is based on the concept of "market value" (Value) as defined by the VALMIN Code.

The VALMIN Code defines Value as the estimated amount of money (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction wherein the parties each acted knowledgeably, prudently and without compulsion. For the purposes of this report, we have applied these definitions to petroleum properties.

A range of oil and gas industry accepted practices in relation to petroleum properties has been considered to determine value, which are described below.

Comparable transaction metrics

The Value of exploration properties can be estimated using recent comparable transactions. Such transactions may provide relevant metrics such as Value per unit of reserves, contingent or prospective

resources and price paid per unit area of the permit or % interest. The VALMIN Code advises Value must also take into account risk and premium or discount relating to market, strategic or other considerations.

Farm-in promotion factors

An estimate of Value can be based on an estimation of the share of future costs likely to be borne by a reasonable farminee under prevailing market conditions. A premium or promotion factor may be paid by the farminee. The promotion factor is defined as the ratio of the proportion of the activity being paid for and the amount of equity being earned.

The nominal permit value is defined as the amount spent by the farminee divided by the interest earned. The premium value for the permit is the difference between the nominal value and the equity share of the cost of the activity divided by the equity interest being earned.

The premium or promotion factor will be dependent upon the perceived prospectivity of the property, competition and general market conditions. The premium value is equivalent to the farminee paying the farminor a cash amount in return for the acquisition of the interest in the permit and is the fair market value.

Farm-in transactions may have several stages. For example, a farminee may acquire an initial interest by committing to a future cost in the first stage of the transaction, but has an option to acquire an additional interest or interests in return to committing to funding a further work program or programs.

Farm-in agreements can also include re-imbursement of past costs and bonus payments once certain milestones are achieved, for example declaration of commerciality, or achieving threshold reserves volumes. Depending on their conditionality, such future payments may contribute to Value. However, they may need to be adjusted for the time value of money and probability of occurring.

Work programme

The costs of a future work programme may also be used to estimate Value. The work programme valuation relies on the assumption that unless there is evidence to the contrary the permit is worth what a company will spend on it. This method is relevant for permits in the early stages of exploration and for expenditure which is firmly committed as part of a venture budget or as agreed with the government as a condition of holding the permit. There may need to be an adjustment for risk and the time value of money.

Expected Monetary Value (EMV)

EMV is the risked NPV of a prospect. EMV is calculated as the success case NPV times the probability of success less the NPV of failure multiplied by the probability of failure. The NPV may be estimated using DCF methods. The EMV method provides a more representative estimate of Value in areas with a statistically significant number of mature prospects within proven commercial hydrocarbon provinces where the chance of success and volumes can be assessed with a reasonable degree of predictability.

The EMV valuation can also be used as a relative measure for ranking exploration prospects within a portfolio to make drilling decisions, assessing commercial potential and to demonstrate the commercial attractiveness of a permit, which may influence a buyer or seller.

In this report, the properties are considered too immature to be valued on a DCF basis and this valuation method is not considered.

2.3. Resource Classification

RISC has used the internationally recognised Petroleum Resources Management System (PRMS)[1] to define resource classification and volumes. The classification of resources is shown in Figure 2-1.

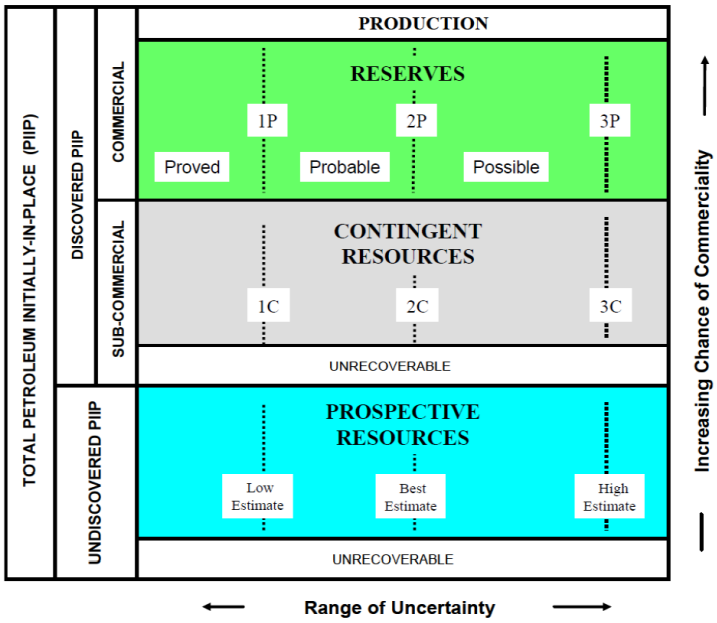


Figure 2-1: Resources classification framework

1. Each project is classified according to its maturity or status (broadly corresponding to its chance of commerciality) using three main classes, with the option to subdivide further using subclasses. The three classes are Reserves, Contingent Resources, and Prospective Resources.
2. Pilot now have Contingent and Prospective Resources in their portfolio according to this classification.
3. For projects that satisfy the requirements for Prospective Resources the terms low estimate, best estimate, and high estimate are used.
4. Under the PRMS guidelines, the range of uncertainty in potentially recoverable volumes may be represented by either deterministic scenarios or by a probability distribution derived from the probabilistic simulation of input variables. RISC has reviewed resource volumes that were calculated probabilistically.
5. The PRMS guidelines indicate that when the range of uncertainty is represented by a probability distribution, a low, best, and high estimate shall be provided such that:
   - There should be at least a 90% probability (P90) that the quantities actually recovered equal or exceed the low estimate;
   - There should be at least a 50% probability (P50) that the quantities actually recovered equal or exceed the best estimate;
   - There should be at least a 10% probability (P10) that the quantities actually recovered equal or exceed the high estimate.

[1] SPE/WPC/AAPG/SPEE 2007 Petroleum Resources Management System

6. The probabilistically derived resource volumes for multiple reservoirs or multiple prospects can be combined probabilistically or, as is the case in this report can be summed arithmetically. In summing probabilistically derived resources the aggregate Low estimate may be a very conservative estimate and the aggregate high estimate may be a very optimistic estimate due to the portfolio effects of arithmetic summation.
7. Prospective Resources can be subdivided into Prospect, Lead or Play. The definitions from the PRMS guidelines are given in Table 2-1.

Table 2-1: Prospective Resources Definition

Prospective Resources	Those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations.	Potential accumulations are evaluated according to their chance of discovery and, assuming a discovery, the estimated quantities that would be recoverable under defined development projects. It is recognized that the development programs will be of significantly less detail and depend more heavily on analog developments in the earlier phases of exploration.
Prospect	A project associated with a potential accumulation that is sufficiently well defined to represent a viable drilling target.	Project activities are focused on assessing the chance of discovery and, assuming discovery, the range of potential recoverable quantities under a commercial development program.
Lead	A project associated with a potential accumulation that is currently poorly defined and requires more data acquisition and/or evaluation in order to be classified as a prospect.	Project activities are focused on acquiring additional data and/or undertaking further evaluation designed to confirm whether or not the lead can be matured into a prospect. Such evaluation includes the assessment of the chance of discovery and, assuming discovery, the range of potential recovery under feasible development scenarios.
Play	A project associated with a prospective trend of potential prospects, but which requires more data acquisition and/or evaluation in order to define specific leads or prospects.	Project activities are focused on acquiring additional data and/or undertaking further evaluation designed to define specific leads or prospects for more detailed analysis of their chance of discovery and, assuming discovery, the range of potential recovery under hypothetical development scenarios.

Prospective Resources have both an associated chance of discovery and an additional chance of commercial development. By implication, not all discovered volumes are necessarily commercial. For the present study when evaluating the prospective resources RISC has restricted its statement to a view of the chance of discovery – equivalent to the geological probability of success (GPOS).

GPOS is used to reflect the chance of encountering a significant volume of recoverable hydrocarbons. In this context, 'significant' implies that there is evidence of a sufficient quantity of petroleum to justify estimating the in-place volume demonstrated by the well(s) and for evaluating the potential for economic recovery (PRMS).

Note that there is an additional chance to reach a specific volume, such as a commercial volume.

Risking methodology specific to the leads is discussed further in the report.

3. WA-507-P (80% WI and Operator)

3.1. Overview

The WA-507-P permit is located on the Exmouth Plateau, Northern Carnarvon Basin, offshore Australia and has an area of 1,662km^2 (Figure 3-1). The permit is some 300km offshore Western Australia in water depths of 1,000m to 1,500m. Past exploration in the area has been successful for large, multi-Tcf gas discoveries with Scarborough (8-10 Tcf 2C contingent resource, source SubseaIQ) and Thebe (2-3 Tcf 2C contingent resource, source Australian Government, 2010 Offshore Petroleum Exploration Acreage Release) to the southwest and Io/Jansz (10 Tcf 2P reserves, source Australian Government, Australian Gas Resource Assessment 2012) and Chandon (3.5 Tcf 2C contingent resources, source Australian Government, Australian Gas Resource Assessment 2012).

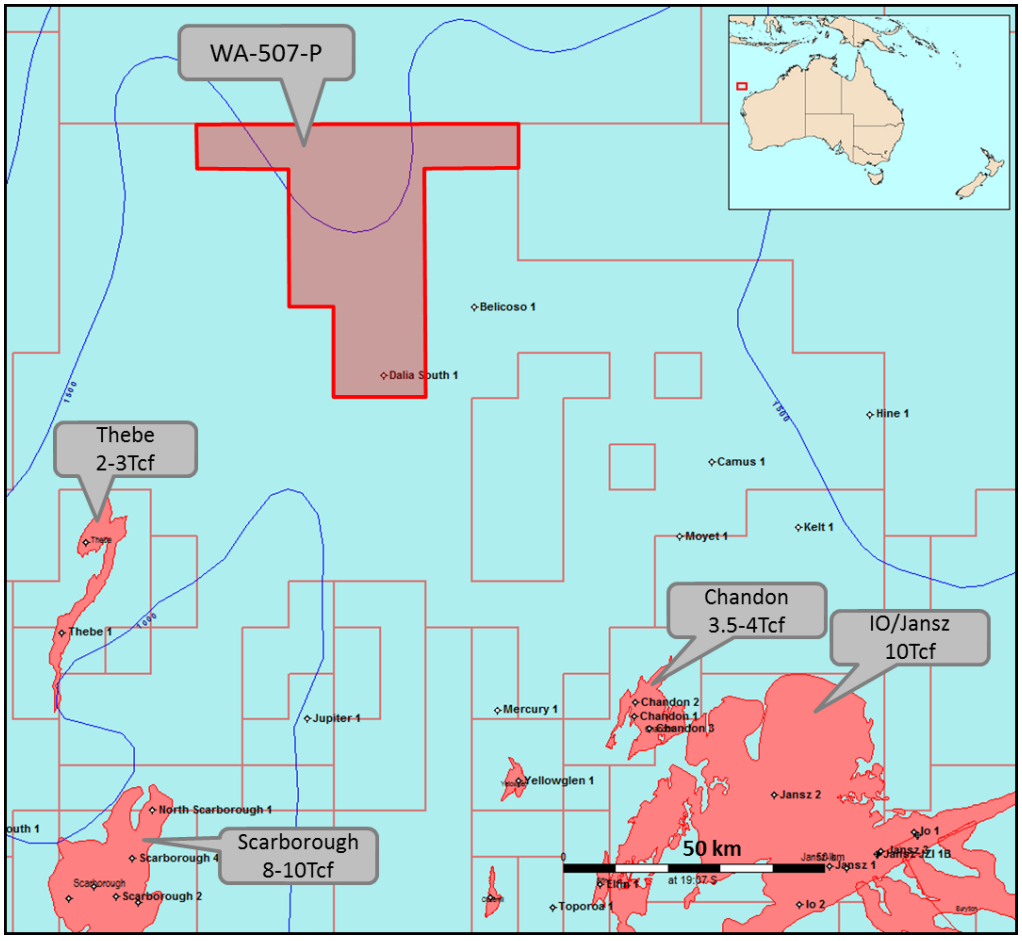


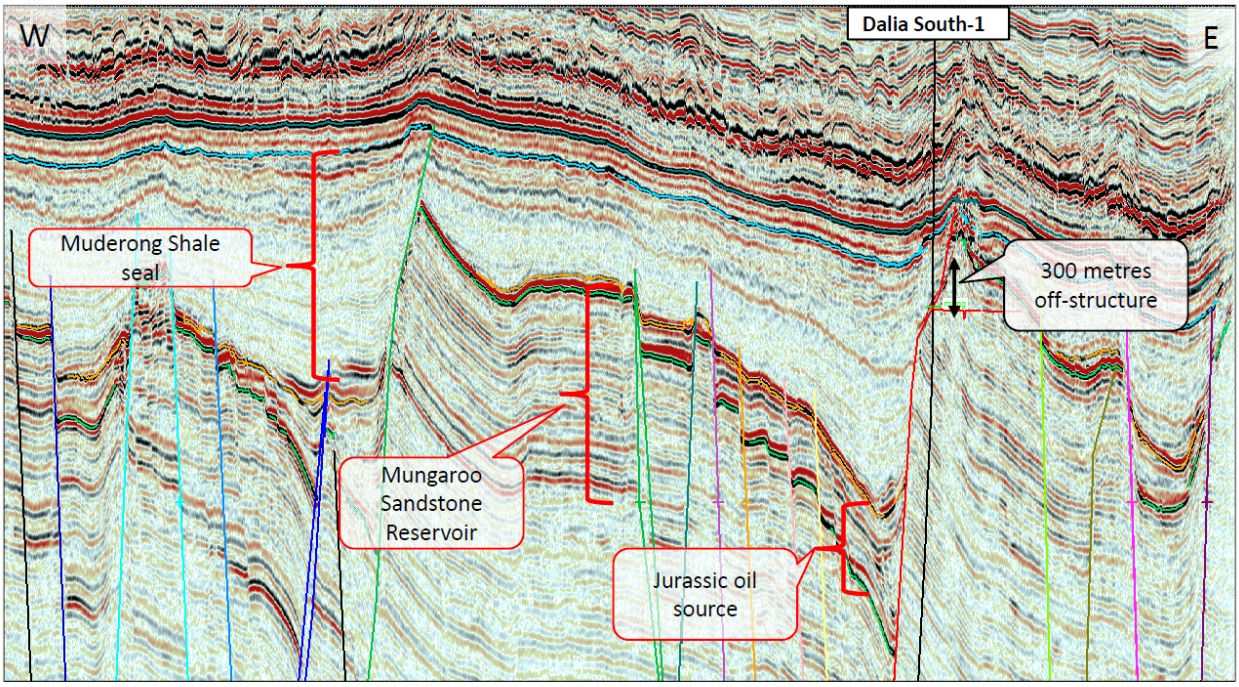
Figure 3-1: Location Map – WA-507-P

The permit was awarded on the 17 November 2014 and through an assignment agreement with a third party, Pilot acquired an 80% interest. Pilot is partnered in the permit by Black Swan Resources Pty Ltd, which owns the remaining 20% interest in the permit and is carried for the primary term by Pilot.

The only well drilled in the permit to date has been Dalia South-1 by Woodside in 2010 to a total depth (TD) of 4,685m. The well targeted a Mungaroo Fm gas play but the well was dry and was later mapped by Pilot to be drilled some 300m down dip from the crest of the structure.

The purchase of the existing 3D seismic data has been acquired under a special evaluation license from TGS. Payment of US$1.2m has been made for the data as the Permit Award Fee, and an additional US$2.5m will be due upon successful farmout or on entering year 4 of the permit term.

The existing, high quality 3D seismic data set (Figure 3-2) has allowed Pilot to mature three large structural prospects ranging in area from 60km^2 to 280km^2 (Figure 3-3). These prospects have the potential to contain significant quantities of gas in sandstones of the Mungaroo Fm (Figure 3-4). An emerging Triassic/Jurassic oil play may also exist in the permit and this new exploration opportunity has also been identified by Shell, Statoil and Eni, who are keenly pursuing the oil play in the surrounding permits but have not proven its existence to date. Results of their work will influence the value of Pilot's acreage before the well is committed in Year 6.



Seismic images shown with permission of TGS

Figure 3-2: 3D Seismic Line through Dalia South-1

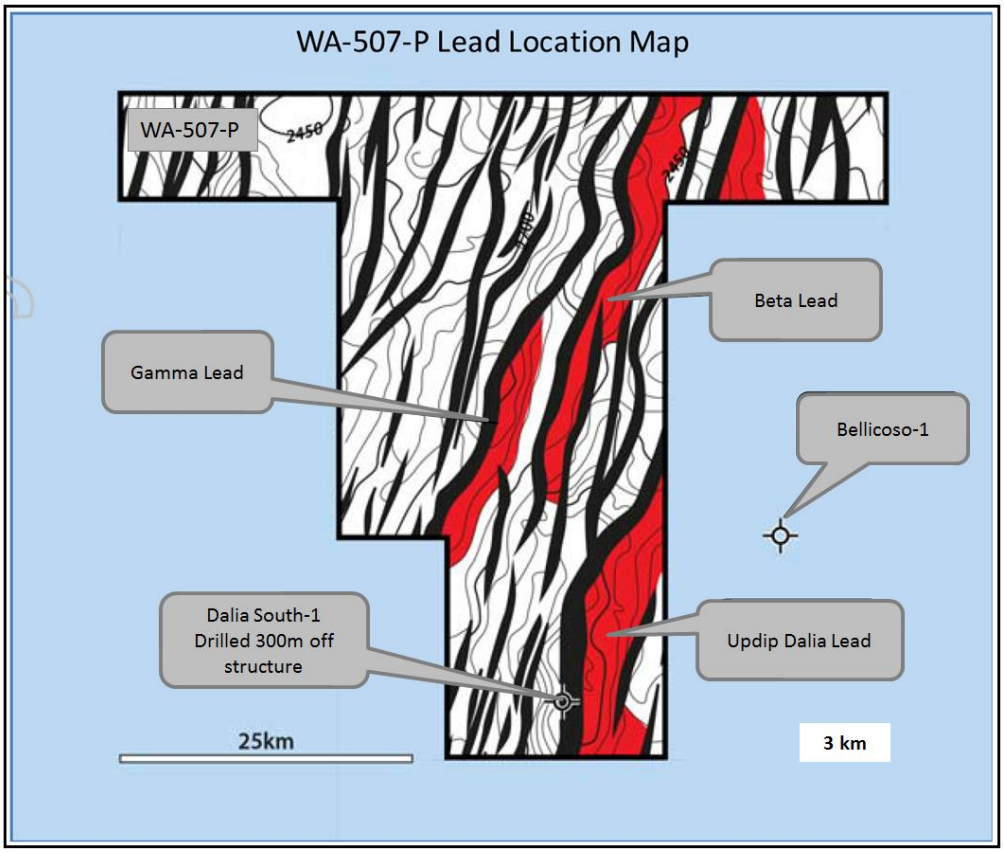


Figure 3-3: WA-507-P Leads Map

GCA has calculated the following prospective gas resources for the three prospects in the permit with the resources calculated only within the block boundary:

Table 3-1: WA-507-P Prospective Gas Resources (GCA) as at 31st January 2015

Prospects	Gross (100%) on block Bcf			Net Pilot (80%) on block Bcf			GPOS (%)
	Low	Best	High	Low	Best	High	
Dalia Updip	1,644	4,734	9,639	1,315	3,787	7,711	18
Beta	1,010	2,436	5,674	808	1,949	4,539	16
Gamma	1,376	2,877	5,786	1,101	2,301	4,629	16
Total	4,030	10,047	21,099	3,224	8,037	16,879	

1. Probabilistic methods have been used.
2. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.

RISC believes that gas or gas and condensate are the most likely hydrocarbon phases to be discovered in the block but the potential for an oil accumulation or a combination of oil and gas cannot be ruled out. The surrounding fields are all gas fields and a gas chimney is seen on seismic on the northern extension of the Dalia prospect. Furthermore, RISC is of the opinion that CGA is optimistic in its assessment that in the event of a discovery of hydrocarbons, the oil case has a 30% chance of occurring vs the 70% chance that it will be the gas case. RISC considers the chance of the oil case being 10% as the oil play is still unproven. The volumes quoted for oil and gas are mutually exclusive, alternative outcomes for these prospects.

Another risk to be considered is the varying amounts of CO2 and other inerts that have been found in the gas discoveries to date in this part of the basin.

RISC believes that the gas case is still attractive for potential farminees.

3.2. WA-507-P Prospects

3.2.1. Dalia Updip

The Dalia Updip prospect is a northeast – southwest trending three way dip, fault bounded closure on an elongated horst block typical of all the leads in this area. The Dalia South-1 well did not intersect the top Mungaroo reservoir horizon as it came in on the downthrown side of the bounding fault and only penetrated older Mungaroo sediments well below the crest. The Jurassic Athol and Dingo Claystones of variable thickness provide the top and lateral seal to all the leads in WA-507-P and is considered the main risk for trap integrity. The reservoir is proven to be high quality sandstone with high porosities at nearby Belicose-1. Source is likely to be gas prone Triassic shales and coals which are mature for generation in this area at 3500 – 4000m and have provided the source of large nearby gas fields like Thebe. Evidence of local and recent gas generation is seen as gas chimneys on the seismic above structures in this area including the northern end of Dalia. There is a possibility of a more marine Triassic/ Jurassic source capable of generating oil which is being followed up by Pilot and other operators in the area, but this is yet to be proven.

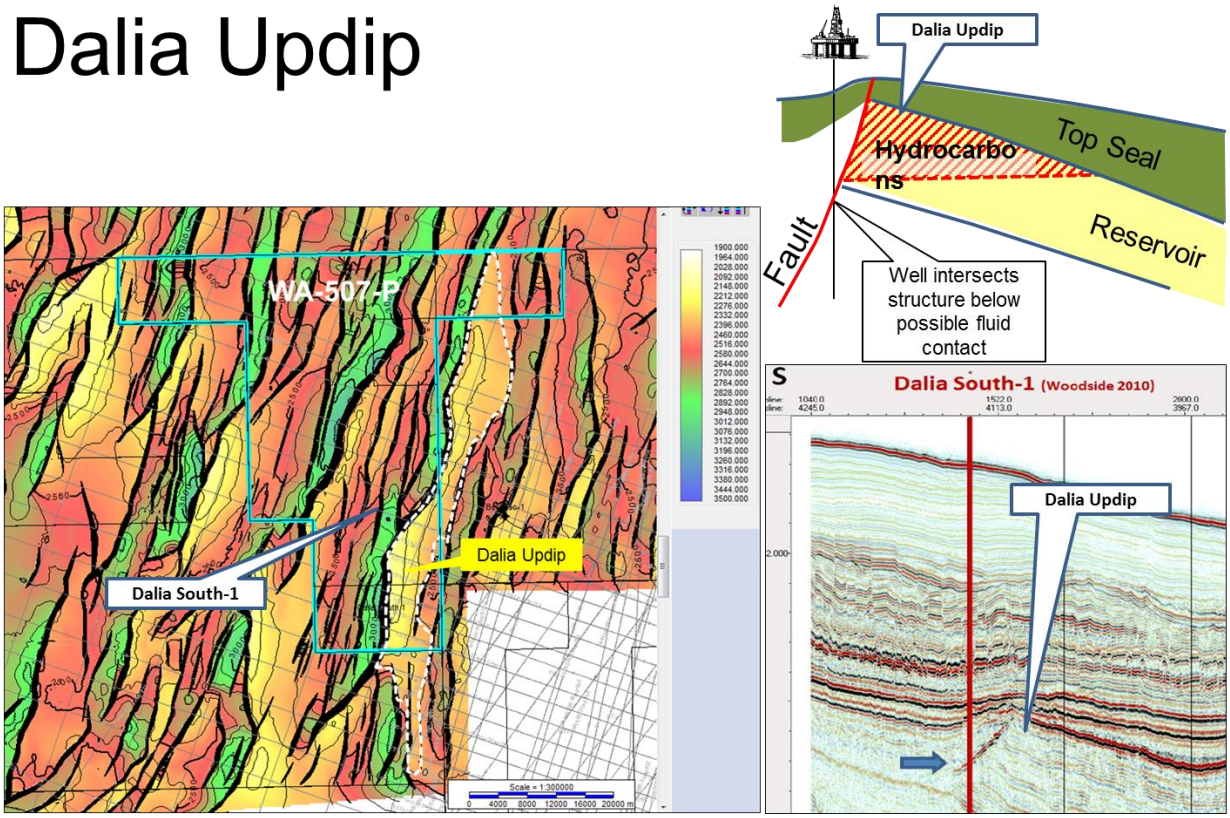


Figure 3-4: Dalia Updip Prospect

The Updip Dalia closure extends out of the permit to the north and south to cover a maximum area of 280km^2 whereas the low-side closure of the southern culmination is 60km^2 which lies totally within the permit The prospective resources documented by GCA are for those within the Permit of which, Pilot has an 80% interest. The crest of the closure is at 2,120m in approximately 1,350m of water.

3.2.2. Beta

The Beta prospect is the next rotated horst block to the west of Dalia Updip and also extends out of the permit to the north. Roughly 50% of the 220km^2 area that it covers is within WA-507-P. The crest of the closure is at 2,300m subsea and the water depth is approximately 1500m. The trap parameters are essentially the same as Dalia Updip as are the reservoir, seal and source risks.

3.2.3. Gamma

The Gamma Prospect is within the fault block immediately to the west of Beta Prospect and the closure is predominantly contained within the block boundary. The crest of the closure is at 2,250m subsea and the water depth is approximately 1500m. GCA sites a lower chance of success factor for source and migration in both Beta and Gamma than Dalia, due to the increased distance from the interpreted gas chimneys on the 3D seismic data.

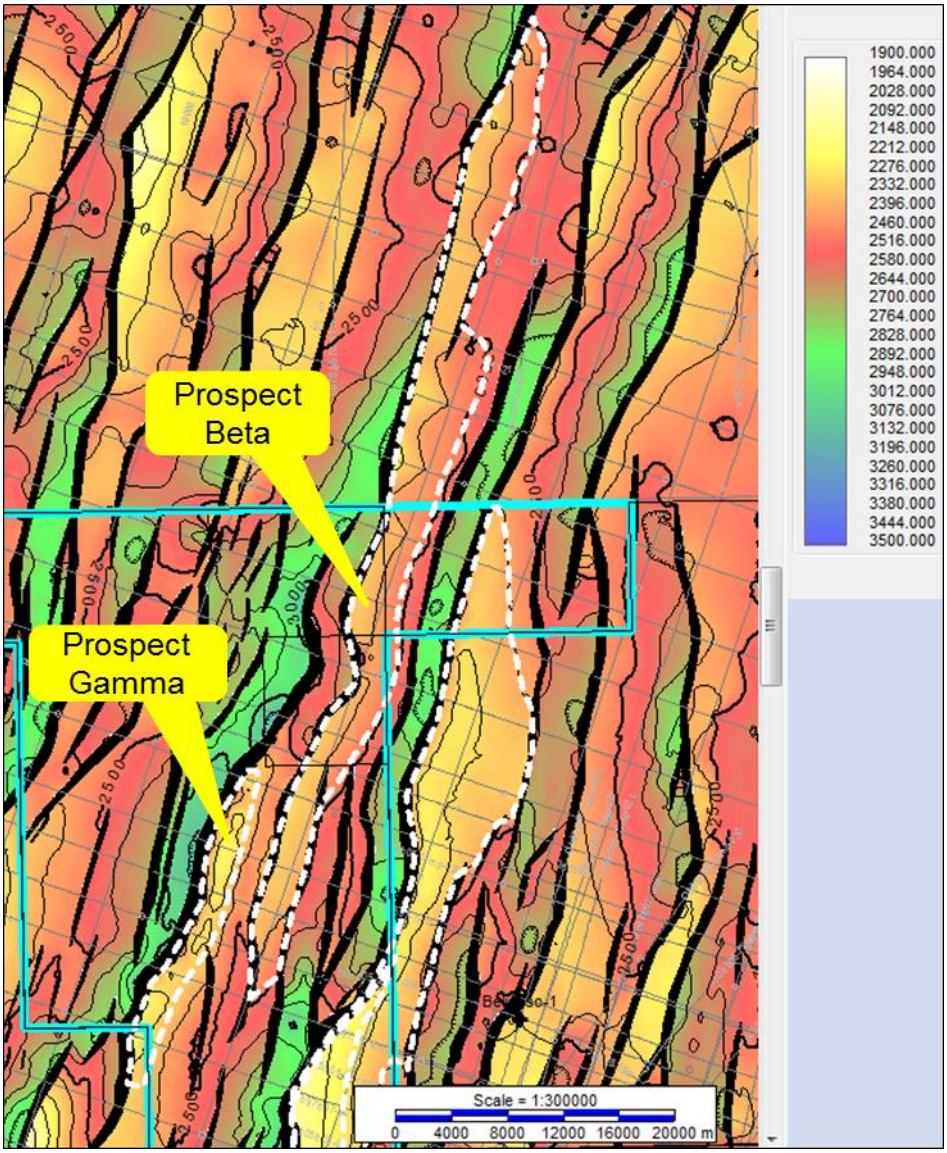


Figure 3-5: Beta and Gamma prospect depth map at Top Mungaroo

3.3. WA-507-P Prospective Resources

There is uncertainty in the mapping of the top depth structure in both Beta and Gamma due to depth conversion techniques that can be employed. GCA's work did not include an evaluation of this uncertainty in the mapping and Pilot intends to carry out further investigation of depth conversion techniques and their consequence on the range of volumetrics. This is also the case for the Gamma prospect and can be seen in the comparison of prospective gas resources calculated by Pilot vs GCA in Figure 3-6. However the overriding remark is that these are potentially large gas resources that would capture the interest of major companies seeking to enhance their exploration portfolios. Pilot is in an excellent position to enhance their chance of success with further geological and geophysical studies including seismic inversion of the 3D data. This will provide the option for them to attract a farminee for, at a minimum a seismic option and at a maximum of drilling one or more wells.

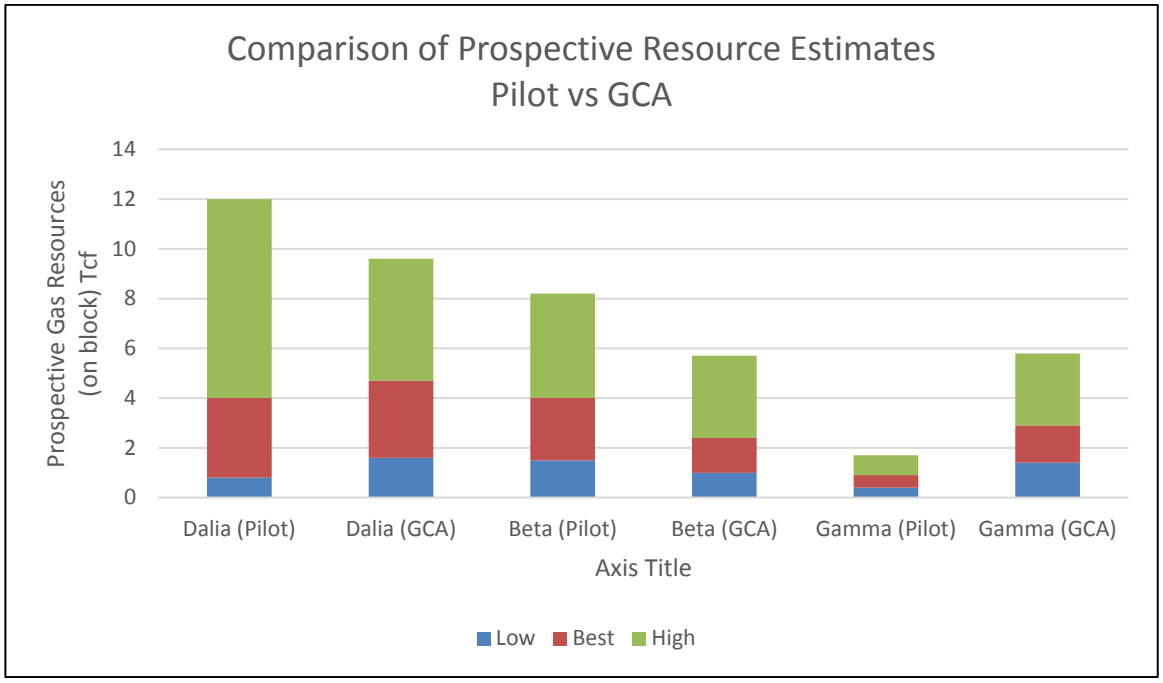


Figure 3-6: Comparison of Prospective Gas Resources calculated by Pilot and GCA

Table 3-2: WA-507-P Gas and Condensate Prospective Resources (GCA) as at 31 January 2015

Lead	Gross Prospective Gas Resources on block (Tcf)			Net Prospective Gas Resources on block (Tcf)			GPOS
	Low	Best	High	Low	Best	High	
Updip Dalia	1.6	4.7	9.6	1.3	3.8	7.7	18%
Beta	1.0	2.4	5.7	0.8	1.9	4.6	16%
Gamma	1.4	2.9	5.8	1.1	2.3	4.6	16%
Total	4.0	10.0	21.1	3.2	8.0	16.9	

Lead	Gross Prospective Condensate Resources on block (MMbbl)			Net Prospective Condensate Resources on block (MMbbl)			GPOS
	Low	Best	High	Low	Best	High	
Updip Dalia	6.6	18.9	38.6	5.3	15.1	30.9	18%
Beta	4.0	9.7	22.7	3.2	7.8	18.2	16%
Gamma	5.5	11.5	23.1	4.4	9.2	18.5	16%
Total	16.1	40.1	84.4	12.9	32.1	67.5	

Table 3-3: WA-507-P Alternative Oil case Prospective Resources (GCA) as at 31 January 2015

Lead	Gross Prospective Oil Resources on block (MMbbl)			Net Prospective Oil Resources on block (MMbbl)			GCoS
	Low	Best	High	Low	Best	High	
Updip Dalia	250	764	1743	200	611	1394	18%
Beta	151	381	931	121	305	745	16%
Gamma	203	436	926	162	349	741	16%
Total	604	1581	3600	483	1265	2880	

3.4. Status of Committed Program

WA-507-P was granted on 17 November 2014 for a 6 year term. The title was transferred to Rampart Energy Limited and Black Swan Resources Pty Ltd on 8 February 2015 and Rampart Energy Limited subsequently changed their name to Pilot Energy Limited which was announced to the ASX on 14 August 2015. RISC has relied on government documentation of approvals and permit awards provided by Pilot to ascertain the permit status.

The six year permit work programme details are given in (Table 3-4). The secondary work program is geological and geophysical studies with a discretionary well which is required to be drilled before the end of Year 6.

Table 3-4: WA-507-P Permit Details and Work programme

Permit	Operator	Interest	Status	Permit Expiry Date	Work Commitments
WA-507-P	Pilot	Pilot 80% Black Swan 20%	Exploration Licence	16 November 2020	Year 1: G&G studies, 1,587 km^2 3D seismic purchase A$1.55 mill Year 2: G&G studies A$0.25 mill Year 3: G&G studies A$0.25 mill Year 4: G&G studies A$0.25 mill Year 5: G&G studies A$0.25 mill Year 6: 1 well, G&G studies A$30.25 mill

The permit is currently in Year 3 and geological and geophysical studies based on the licensed seismic data are ongoing.

The outstanding liabilities are confined the Year 3 commitments totalling A$250,000 in studies. The commitments beyond Year 3 are discretionary however the value in the block is dependent on getting the Year 6 well drilled.

Pilot and its joint venture partner are seeking to farm down either through seismic costs (US$3.8 million including farmin equity uplift payment to seismic provider) and a well; or alternatively as a staged entry through a cash payment in order to earn an option to drill a well.

3.5. Exploration Program Costs

Pilot will be able to manage the costs of the G&G studies to within the A$250,000 commitment as long as they remain the operator.

The purchase of the existing 3D seismic data has been acquired under a special evaluation license from TGS. After a renegotiation of the original terms, payment of US$250,000 was made in December 2015 and a further US$841,500 was paid for the data in mid-2016. An additional US$2.5 million will be due upon successful farmout or on entering year 4 of the permit term. As this 3D is excellent quality and covers the entire permit it is unlikely that any new seismic will be acquired.

RISC estimates the dry hole well cost for a well to 2350m in 1350m of water will be in the range of US$20 – US$25 million using a “rig of convenience” to minimise mobilisation costs at the prevailing rig rates.

3.6. Fiscal Terms

WA-507-P is in Australian Federal Government waters and comes under the Petroleum Resource Rent Tax Assessment Act 1987. The fiscal terms of the PRRT are a profit-based tax levied on a petroleum project.

PRRT is currently applied to the recovery of all petroleum products from Australian Government waters (including crude oil, natural gas, liquid petroleum gas (LPG) condensate and ethane), except for petroleum products extracted from the North West Shelf project and the Joint Petroleum Development Area, and value added products such as liquefied natural gas (LNG).

From 1 July 2012, the PRRT became a compulsory tax applied to all Australian onshore and offshore oil and gas projects, including the North West Shelf, oil shale and coal seam gas projects.

PRRT is levied at a rate of 40 per cent of a project's taxable profit (that profit being calculated for PRRT purposes). Taxable profit is the project's income after all project and 'other' exploration expenditures, including a compounded amount for carried forward expenditures, have been deducted from all assessable receipts. PRRT payments are deductible for company income tax purposes.

3.7. WA-507-P Valuation

RISC has used the potential value to Pilot of WA-507-P being farmed out to a third party who will assume a proportion of future costs to explore the permit at a premium or promote to their earned interest cost. The premium provides the value of the permit.

In the low case we have assumed that a farminee will pay a 2 for 1 (2:1) of the full cost of the seismic (US$3.6 million). This values Pilot’s 80% share at US$2.9 million.

In the mid case RISC has taken an estimated cost of a well in WA-507-P (US$25 million) and assumed a 1.5:1 carry. This values Pilot’s 80% at US$10 million. The seismic costs which are assumed to be past costs when the well is drilled will be picked up at 1:1 by the incoming party and therefore have no premium value for Pilot.

In the high case RISC has assumed a 1.75:1 carry for the well valuing Pilot's share at US$15 million.

The slightly higher carries in WA-507-P versus the remaining permits in Pilot's portfolio, is justified by the size of the prospects which will potentially attract large companies willing to pay a higher premium.

4. WA-503-P (80% WI and Operator)

4.1. Overview

The WA-503-P permit is located in the Dampier Sub Basin, offshore Australia and has an area of 80km^2 (Figure 4-1). The permit is approximately 80 km offshore Western Australia in water depths of no greater than 70m. Past exploration in the area has been successful for medium sized gas discoveries with Reindeer/Caribou (446 Bcf 2P reserves, source Offshore Technology) to the southwest and oil fields at Legendre (48 MMbbl was produced, source Sub Sea IQ) and Hurricane oil and gas discovery.

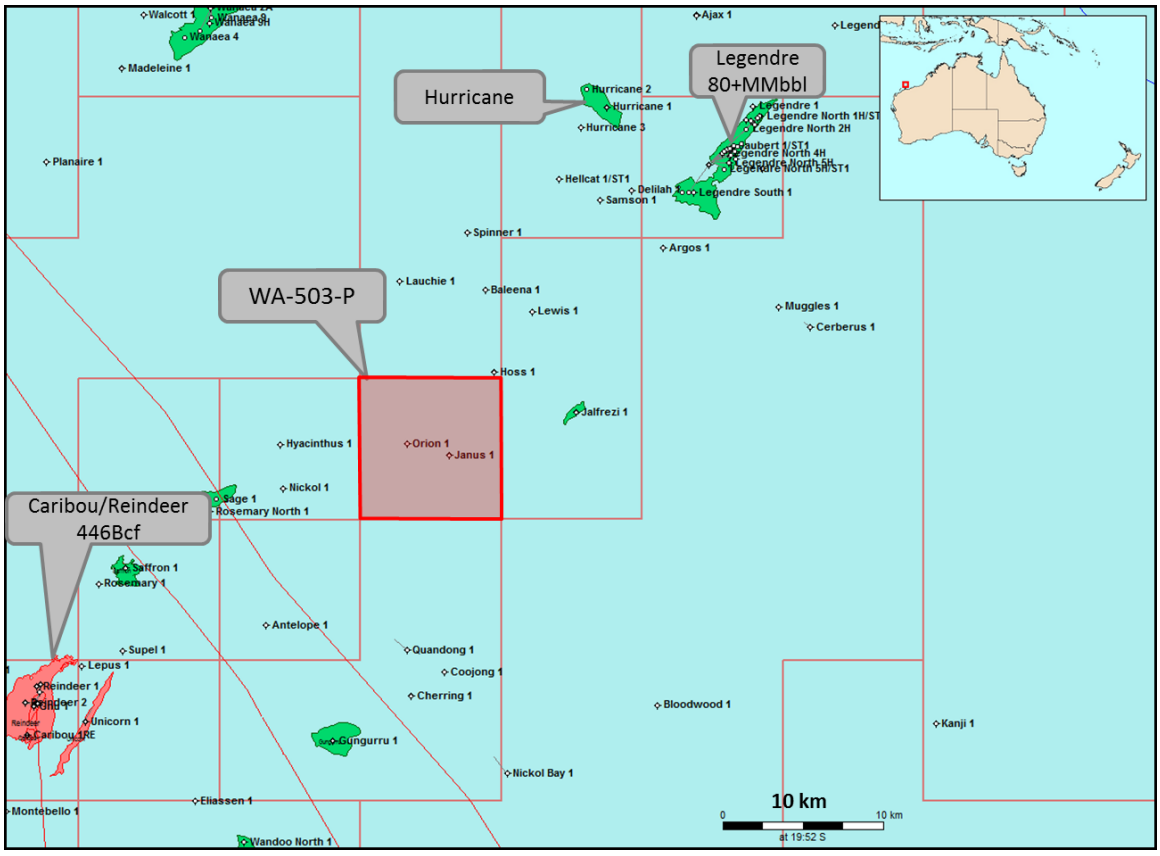


Figure 4-1: Location Map – WA-503-P

The permit was awarded on 13 May 2014 and through an agreement with Neon Energy Ltd, Pilot acquired an 80% interest. Pilot is partnered in the permit by Black Swan Resources Pty Ltd, which owns the remaining 20% interest in the permit and is carried for the primary term by Pilot.

Past exploration has seen two wells drilled in the permit with Woodside drilling Orion-1 (P&A) in 1990 and Apache drilling Janus-1 (Gas Shows) in 1998. The primary targets are the Lower Cretaceous to Upper Jurassic sandstone reservoirs within the Legendre oil trend located on the western flank of the Lewis Trough (Figure 4-2).

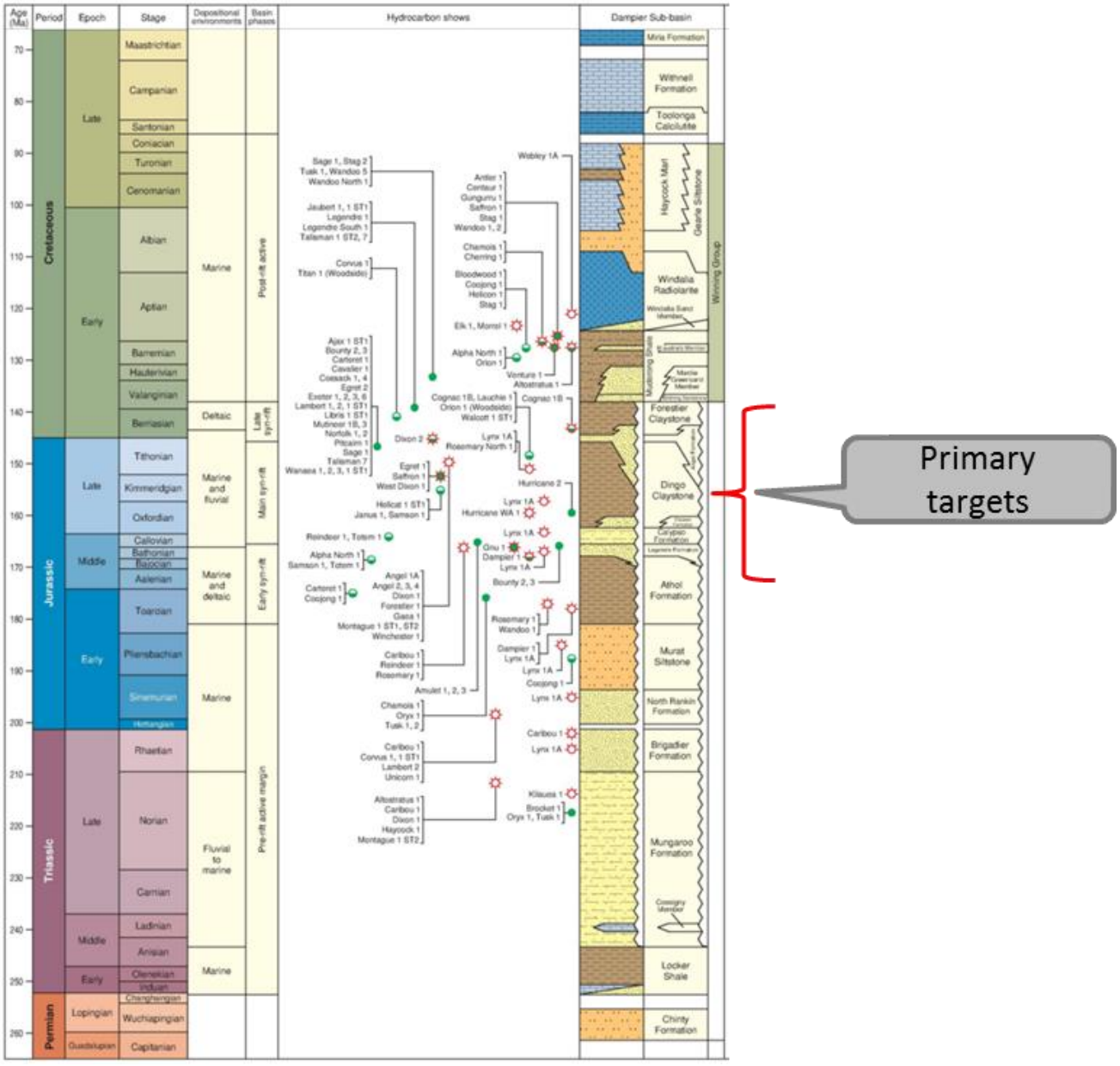


Figure 4-2: Dampier Sub Basin Stratigraphic Chart

Existing discoveries within and adjacent to the block confirm the presence of both a Lower Cretaceous and Upper Jurassic petroleum systems. Many play types exist in the area with the most recent Hurricane oil and gas discovery being a successful combination structural/stratigraphic trap in the Eliassen Formation reservoir. Pilot has identified three exploration prospects based on the existing 3D seismic data at this play level and the shallower Angel and M. Australis sand levels. The prospects are structural plays and two are updip of the existing wells Orion-1 and Janus-1 (Figure 4-3 and Figure 4-4) which were drilled off structure. The Janus-1 well had 4m of oil shows in the Eliassen reservoir. The third structure is a buttress play on the down thrown side of a major fault that forms part of the Rosemary Fault system.

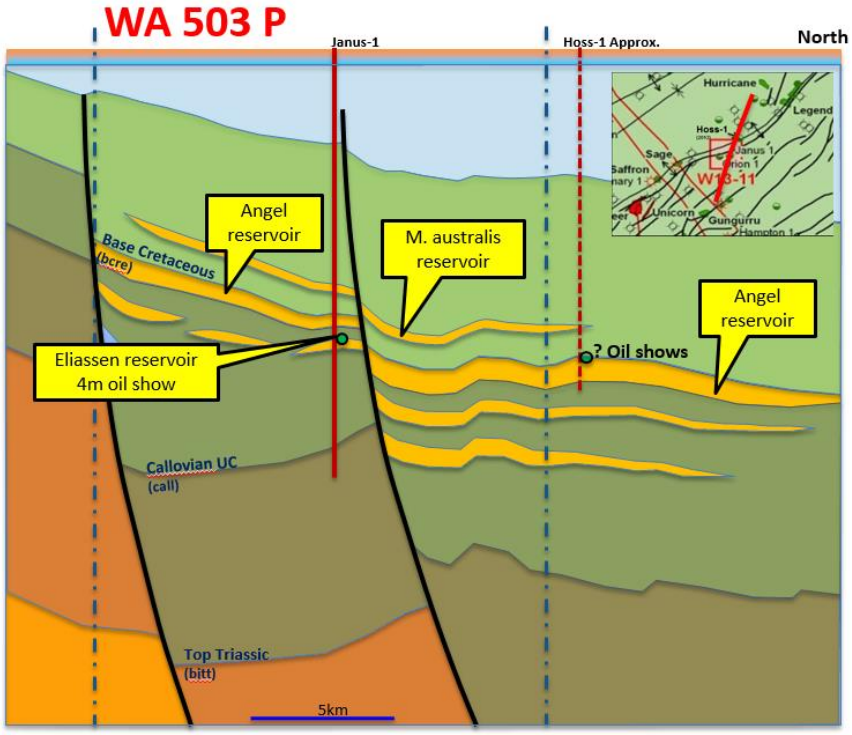


Figure 4-3: WA-503-P Play Diagram

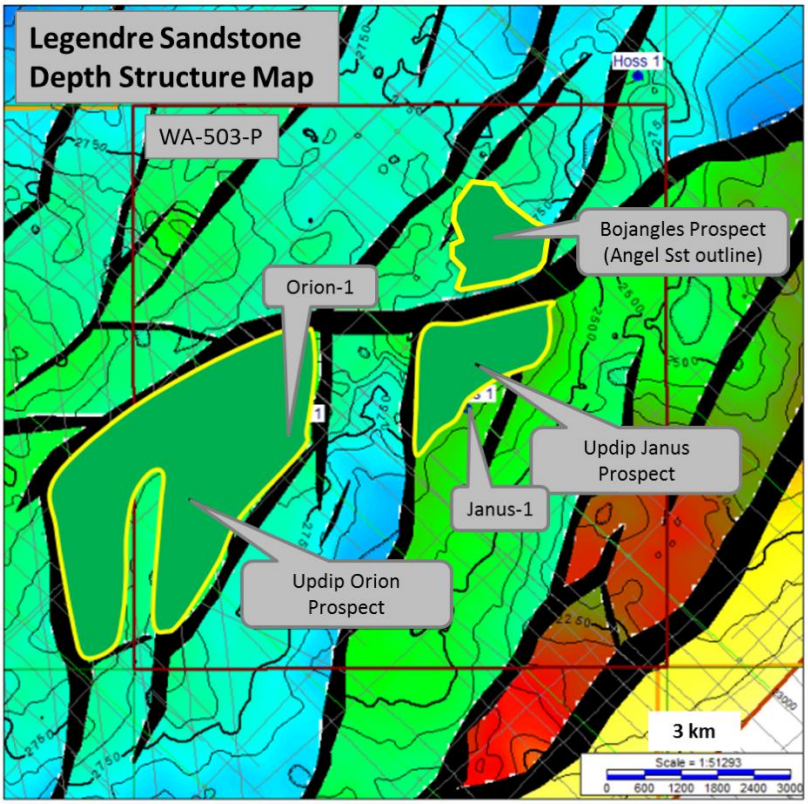


Figure 4-4: WA-503-P Prospects Map

4.2. WA-503-P Prospects

4.2.1. Updip Janus

Updip Janus is a small (2.5km^2) triangular fault block dipping to the southeast and bounded to the west and north by faults. The seal at the Legendre level is an expanded Dingo Claystone section laterally juxtaposed across the bounding faults. At the Eliassen Formation level it is the Lower Muderong Shale. The existing seismic is not very clear over the crest of the structure. The reservoirs penetrated in Janus-1 have been the subject of a recent petrophysical review. The Legendre Formation was over 100m thick and between 2365m and 2465m RT had a net to gross of 64% and an average porosity of 20.4%. The Eliassen Formation encountered at 1885m RT was 67m thick with a net to gross of 42.7% and an average porosity of 16.8%. These are excellent reservoirs that produce with high recovery factors in the 50 – 80% range in nearby fields like Legendre, Saladin and Griffin. GCA estimate the best case, gross prospective resources for the Eliassen and Legendre to be 6.9MMbbls and 3.1 MMbbls respectively with a 17% GPOS for the Legendre level and 24% GPOS for the Eliassen level reflecting the occurrence of oil shows at this level in Janus-1. RISC believes that GCA has captured the range of uncertainty for the in place resources but has been conservative on the upside for recovery factors in WA-503-P prospects in comparison to nearby field analogues.

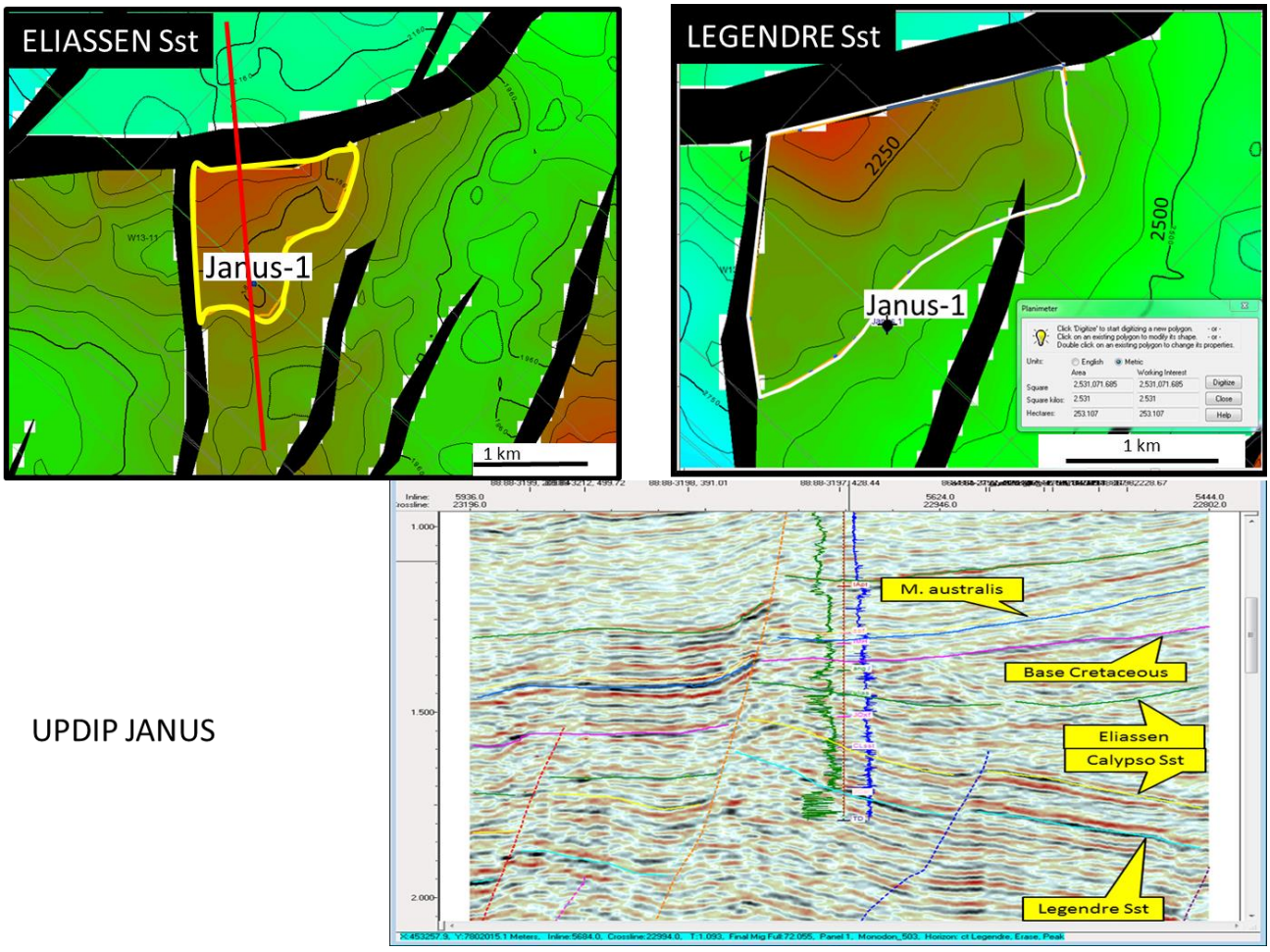


Figure 4-5: WA-503-P Updip Janus Prospect

4.2.2. Updip Orion

The Legendre sandstone play was not tested by Orion-1 which was terminated after testing the Eliassen Formation. Pilot have captured a wide range in structural closure uncertainty from 3.2km^2 for a single fault dependent closure updip of Orion-1 to 23.6km^2 for a closure that requires multiple faults to seal at a Lowest Closing Contour (LCC) of 2750m (including areas outside the block boundary). Reservoir parameter in the Legendre sandstone are taken as being similar to Janus-1. GCA's best estimate for prospective resources within the block are 25.1 MMbbls making this the largest prospect in WA-503-P with a 15% GPOS. In the Eliassen Formation in Orion-1, there is a 5m sand with a resistivity anomaly on the logs which could be oil saturation. If it is an indication of oil there is a 17% GPOS of there being an accumulation updip of Orion-1. In the Eliassen and M. Australis formation the small updip Orion-1 closures could contain 1.1 MMbbls and 2.9 MMbbls respectively (Gross Best Estimate Prospective Resources, GCA).

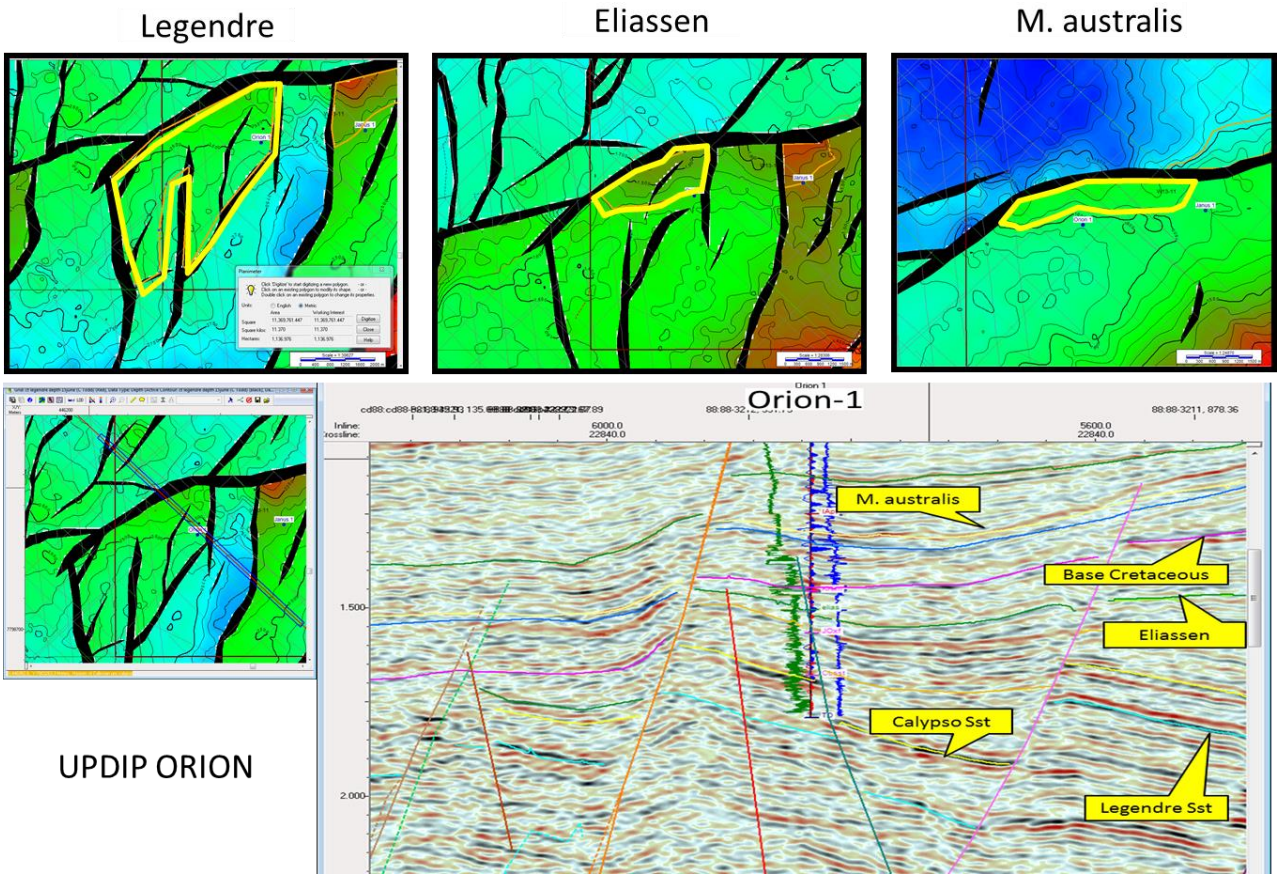


Figure 4-6: WA-503-P Updip Orion Prospect

4.2.3. Bojangles

The Bojangles prospect is a three way dip closure or "buttress" closure, on the downthrown side of the Rosemary fault trend. It is adjacent to the Updip Janus prospect. The targets are the M Australis and Angel Sandstone. The M Australis Sandstone is juxtaposed Muderong and Dingo shales as well as the dip closed Angel Sandstone on the upthrown side in the Janus prospect. The Angel Sandstone is similarly juxtaposed against the Dingo Claystone and the dip closed Eliassen Sandstone which had the oil shows in it at Janus-1.

The mapped structural closure is small at both levels. GCA estimate the Best estimate Prospective Resources to be around 3.5 MMbbls in each reservoir with a 17% GPOS.

RISC believes that at current oil prices this is too small to be a standalone target but new Broadband 3D may de-risk this and the other prospects and also define additional stratigraphic trapping upside to these plays.

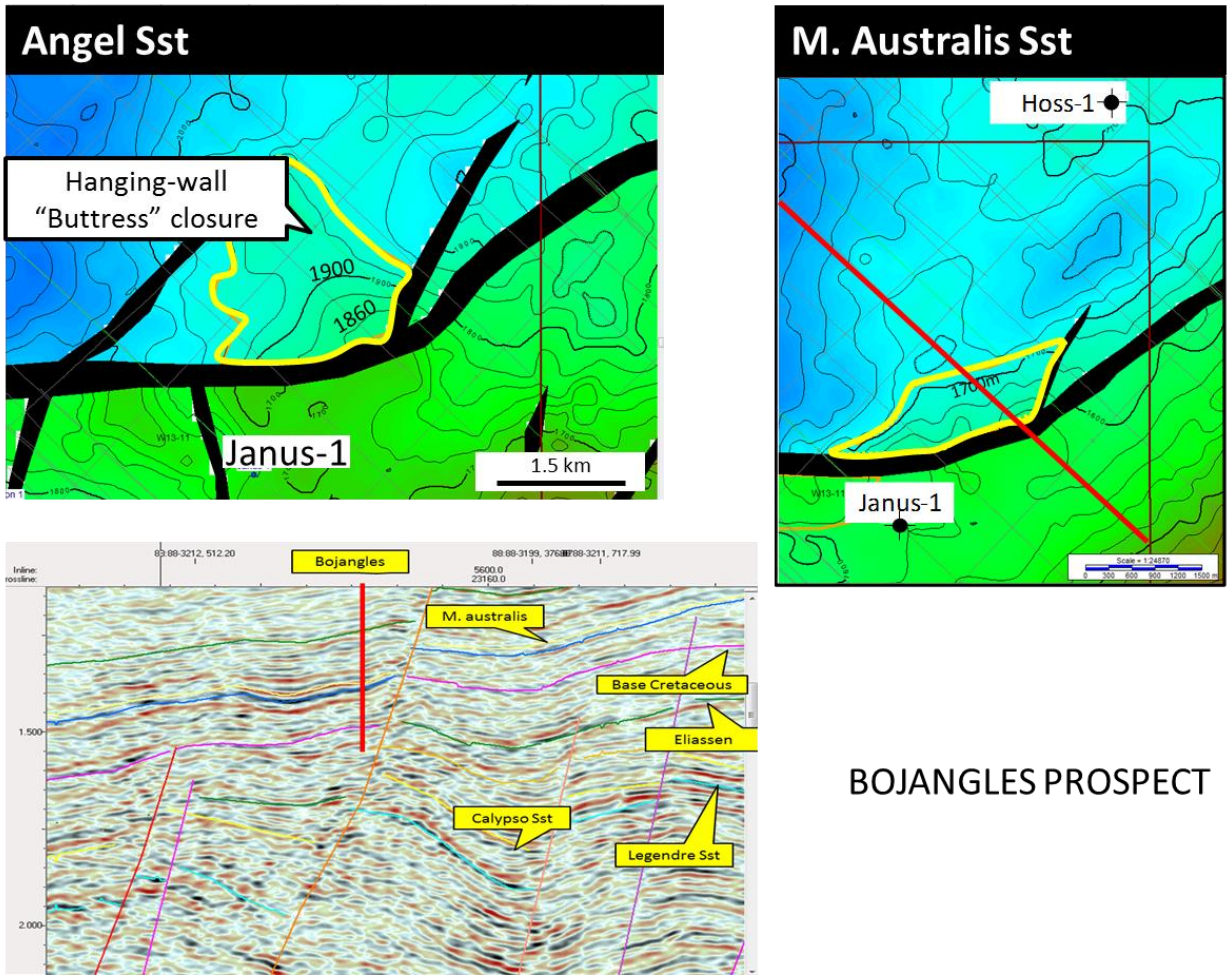


Figure 4-7: WA-503-P Bojangles Prospect

4.3. WA-503-P Prospective Resources

GCA has calculated the following prospective resources for the three prospects in WA-503-P:

Table 4-1: WA-503-P Oil Prospective Resources by reservoir (GCA) as at 30th November 2015

Prospects	Reservoir	Gross Prospective Resources (MMbbl)			Net Prospective Resources (MMbbl)			GPOS
		Low	Best	High	Low	Best	High	
Updip Janus	Legendre	3	6.9	13.5	2.4	5.5	10.8	17%
	Eliassen	1.5	3.1	6.2	1.2	2.5	5.0	24%
Updip Orion	Legendre	7.6	25.1	63.5	6.1	20.1	50.8	15%
	Eliassen	0.6	1.1	2.1	0.5	0.9	1.7	17%
	M Australis	0.6	2.9	7.2	0.5	2.3	5.8	17%
Bojangles	Angel	1.5	3.4	6.9	1.2	2.7	5.5	17%
	M Australis	1.5	3.5	7.1	1.2	2.8	5.7	17%

Table 4-2: WA-503-P Oil Prospective Resources by lead (GCA) as at 30th November 2015

Prospects	Gross Prospective Resources (MMbbl)			Net Pilot (80%) Prospective Resources (MMbbl)		
	Low	Best	High	Low	Best	High
Updip Janus	4.5	10	19.7	3.6	8.0	15.8
Updip Orion	8.8	29.1	72.8	7.0	23.3	58.2
Bojangles	3	6.9	14	2.4	5.5	11.2
Total	16.3	46	106.5	13.0	36.8	85.2

1. Probabilistic methods have been used.
2. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.

4.4. Status of Committed Program

WA-503-P was granted on 13 May 2014 to Neon Energy Limited. On 28 March 2015 the equity in the permit was transferred by a deed of assignment to Rampart Energy Limited (80%) and Black Swan Resources Pty Ltd (20%). Rampart Energy Limited subsequently changed their name to Pilot Energy Limited which was announced to the ASX on 14 August 2015. RISC has relied on government documentation of approvals and permit awards provided by Pilot to ascertain the permit status.

The six year permit work program details are given in (Table 4-3). The permit is currently in Year 3 with a firm commitment to conduct three years of geological and geophysical studies, including the commitment to acquire 80km^2 of new "Broadband" 3D seismic data across the permit. The company successfully applied to the National Offshore Petroleum Titles Administrator (NOPTA) for a Transitional Work programme Variation, the effect of which is to combine the primary term work commitments of each of years one to three, into

commitments which must be fulfilled by the three year anniversary date; being 12 May 2017. In the event that the joint venture elects to proceed to the discretionary second term an exploration well is required to be drilled in Year 4.

Table 4-3: WA-503-P Permit Details and Work programme

Permit	Operator	Interest	Status	Permit Expiry Date	Work Commitments
WA-503-P	Pilot	Pilot 80% Black Swan 20%	Exploration Licence	14 May 2020	Year 1–3: G&G studies, 80 sq km 3D seismic A$1.55 mill Year 4– 1 well A$22.5 mill Year 5– G&G studies A$0.3 mill Year 6– G&G studies A$0.2 mill

Pilot has signed an agreement with CGG to acquire broadband seismic data over the 80 km^2 permit as part of a greater multi-client survey. Pilot was expecting the acquisition to occur in 2016 but a vessel has not been available within Australian waters since late 2015. CGG currently have a vessel scheduled to commence the remainder of the Davros survey in November 2017 (subject to approval of the Environmental Plan).

Because of this delay, Pilot has applied to NOPTA for an 18 month suspension/extension to the primary three year term to be able to acquire, process and interpret the CGG broadband data before making a decision to enter Year 4 and being committed to drilling a well.

Pilot and their joint venture partner intend to farm down their equity to recoup seismic and well costs and have started a farmout process.

4.5. Exploration Program Costs

The seismic acquisition and processing is budgeted at US$500,000. Special processing (QI and AVO) will be included in the G&G studies budget. No other seismic acquisition is likely during the permit term. A farminee will have to pay an uplift fee to license the 3D data of US$1.05 million.

RISC has reviewed the dry hole well cost estimate and concludes that a well in 70m of water that will be drilled with a jack-up rig of convenience, to minimise mobilisation costs, to a prospect depth of 2500m would cost US$15 - 20 million dollars based on prevailing jack-up rig rates.

4.6. WA-503-P Valuation

RISC has used the potential value to Pilot of WA-503-P being farmed out to a third party who will pick up a proportion of future costs to explore the permit at a premium to their earned interest cost.

In the low case we have assumed that a farminee will pay a 1.5:1 carry of the full cost of the seismic (US$1.55 million including the seismic company's uplift fee for a new partner). This values Pilot's 80% share at US$0.6 million.

In the mid case RISC has assumed a 2:1 carry on the seismic costs valuing Pilot's 80% share at US$1.2 million. This will give the incoming party the option of participating in a well at their earned equity cost.

In the high case RISC has taken an estimated cost of a well in WA-503-P (US$15 million) and assumed a 1.75:1 carry on the well. This values Pilot's 80% at US$9 million.

5. WA-481-P (60% WI and Operator)

5.1. Overview

WA-481-P is located offshore in the northern Perth Basin, in shallow water adjacent to the Western Australian towns of Dongara and Geraldton (Figure 5-1). The large permit covers 17,745km^2 and has been sparsely explored with some encouraging results (sub-commercial oil discovery at Dunsborough-1 and a sub-commercial gas discovery at Frankland-1). The developed offshore Cliff Head oil field and the onshore Woodada, Dongara and Waitsia gas fields and Hovea oil field lie adjacent to the permit and provide local infrastructure that could be used in the event of a discovery in WA-481-P.

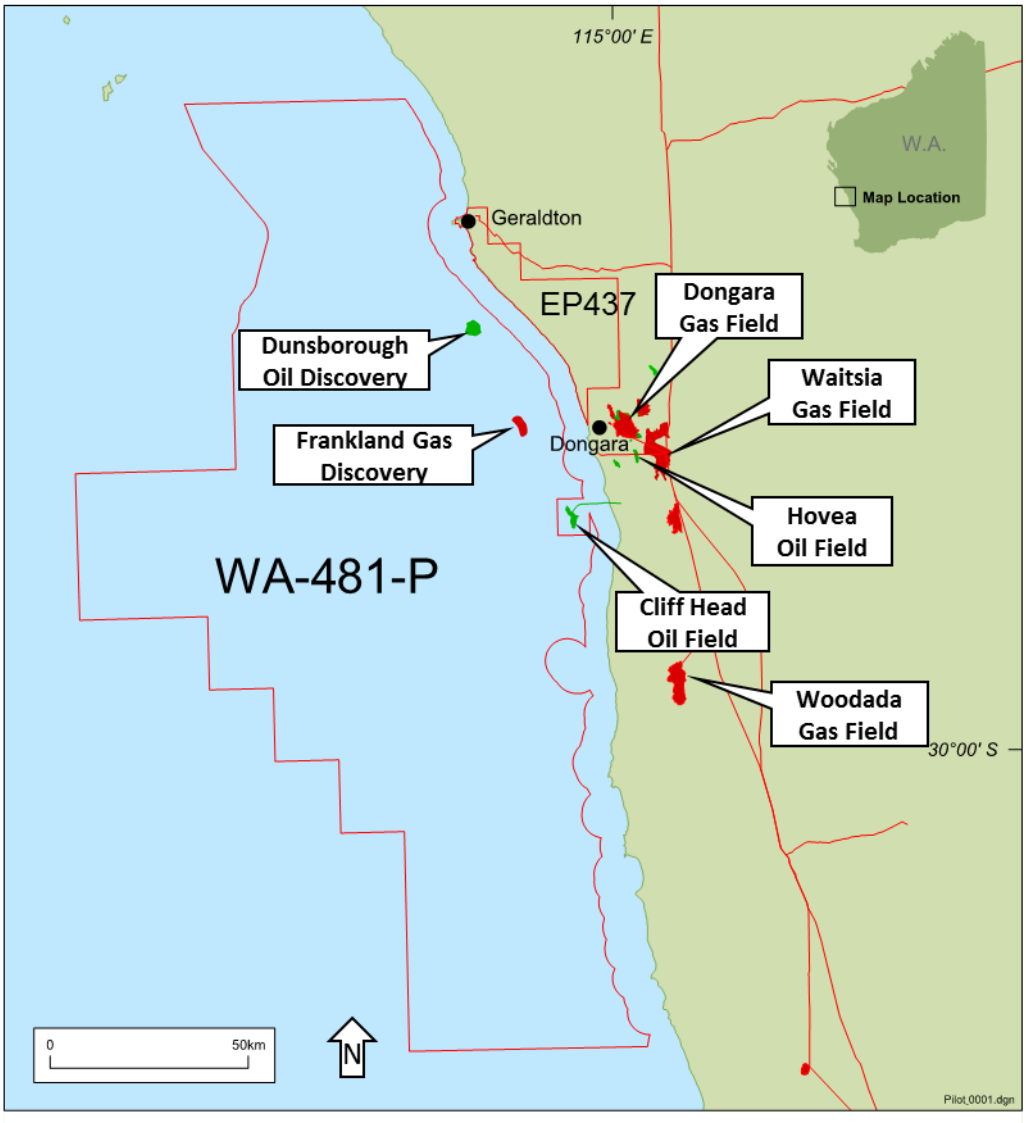
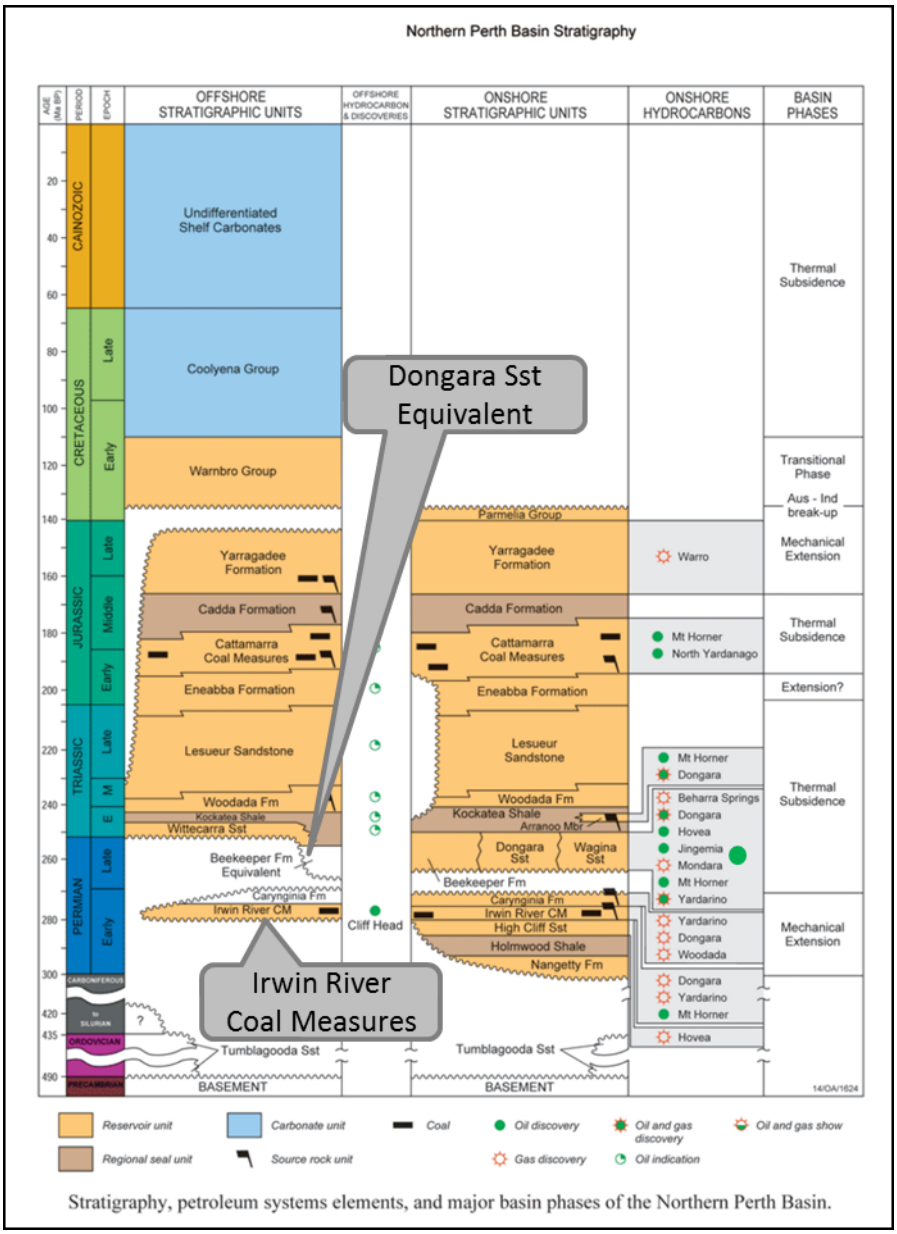


Figure 5-1: Location Map – WA-481-P

On 27 July 2016 Pilot announced that it had acquired a 100% interest in WA-481-P from Murphy Australia WA-481-P Oil Pty Ltd in return for assigning a Net Profits Interest of 10% after tax to Murphy Oil on any future hydrocarbon production in the permit. Key Petroleum, who had worked in co-operation with Pilot on the acquisition, exercised their option to acquire 40% of the WI on 29 July 2016. WA-481-P has benefitted from considerable prior exploration investment by Murphy Oil (2D and 3D seismic and wells) such that there is a $65.6 million Petroleum Resource Rent Tax (PRRT) credit attached to the permit and split 60% to Pilot and 40% to Key. PRRT is levied at a rate of 40% on profits from future developments which will be reduced by the compounded value of the credit, significantly enhancing the value of the permit and its prospects.

The primary objectives in the offshore North Perth Basin are the Permian Dongara Sandstone equivalent and the underlying Irwin River Coal Measures which reservoir the oil in the Cliff Head Field (Figure 5-2).



Stratigraphy, petroleum systems elements, and major basin phases of the Northern Perth Basin.

Figure 5-2: Offshore Northern Perth Basin Stratigraphy

The Cliff Head field has estimated reserves of 18 MMbbls and is close to the end of its field life having produced 15 MMbbls. Pilot has identified a number of similar sized prospects close to Cliff Head that if successful could be developed by a tie back to the Cliff Head facilities making the initial investment much more economic than a standalone development.

5.2. WA-481-P Discoveries

Three discoveries have been made in the existing permit; Dunsborough-1 (ROC 2008) oil and gas discovery, Frankland-1 (ROC 2008) gas discovery, and Perserverance-1 (ROC 2009) high CO_2 gas discovery.

5.2.1. Dunsborough Oil Discovery

The Dunsborough-1 oil discovery well was drilled in to the crest of a tilted fault block trap and discovered a 9m gas column and a 25m oil column down to -1470m TVDss. Dunsborough-2 was drilled to appraise the discovery on the southern flank and confirmed the oil column in the Bookara Member/Dongara Sandstone and the Irwin River Coal Measures (IRCM).

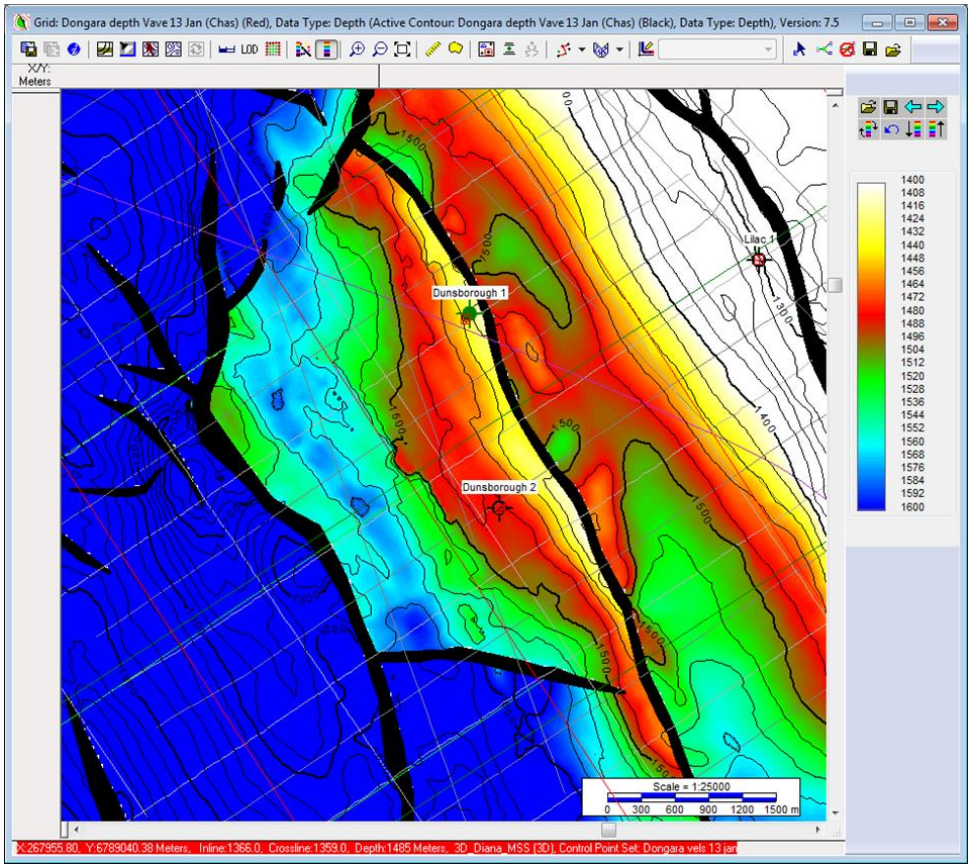


Figure 5-3: Dunsborough Top Dongara Sandstone Depth Map

The bulk of the oil is reservoired high net to gross (75-87%) Bookarah/Dongara sandstone which has an average porosity of 18%. The underlying IRCM has a lower net to gross but a similar average porosity.

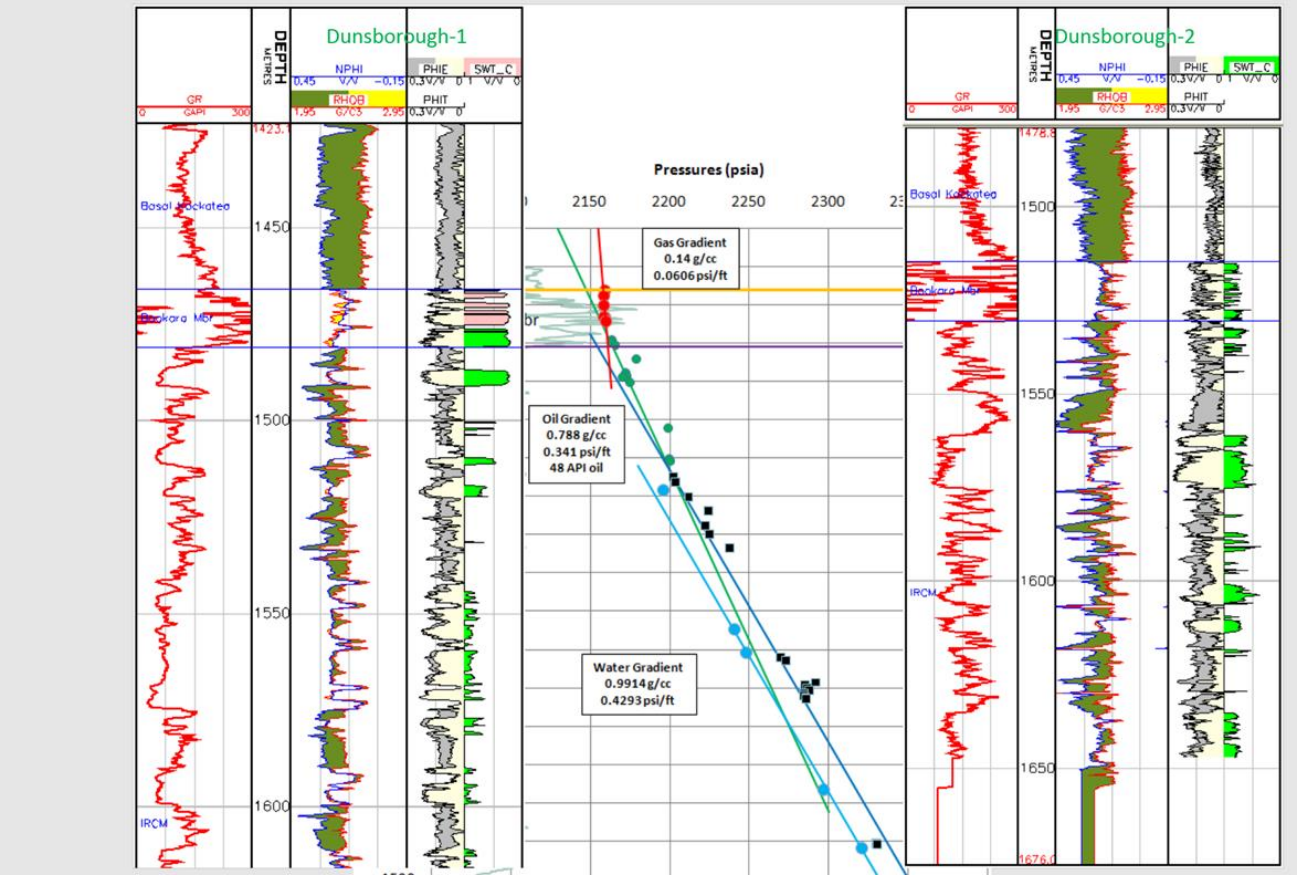


Figure 5-4: Dunsborough Wireline Log and Pressure Data

Pilot have calculated Contingent Resources of 6 MMbbls of recoverable oil in the P50 case for Dunsborough and RISC has been able to confirm that this is a reasonable estimate (see full Contingent Resource Table 5-1). There is less than 0.5 Bcf of gas in the gas cap making it commercially insignificant. On a standalone basis at current oil prices, Dunsborough is not economic to develop but if drilling of other prospects in the area were successful a development may be feasible in the future.

5.2.2. Frankland Gas Discovery

The Frankland-1 gas discovery well was drilled on a north-northwest-south-southeast trending fault block near the crest of the structure and found gas at the Bookra/Dongara Sandstone level at 1943 mTVDss. Gas samples were recovered from the Bookra/Dongara Sandstone and the IRCM but pressure data shows that they are not in communication. The IRCM appears to have a number of isolated pools of gas rather than a single gas column making it difficult to produce. A second well on the structure immediately to the north, Frankland-2, came in 50m low to prognosis and reduced the overall volume of gas from that predicted.

Pilot have calculated P50 case Contingent Resources of 33 Bcf in the Bookra/Dongara Sandstone and 9 Bcf in the IRCM (Table 5-2). RISC has been able to confirm that the Pilot calculations are reasonable and that at present, on a standalone basis, development of Frankland is not economically feasible.

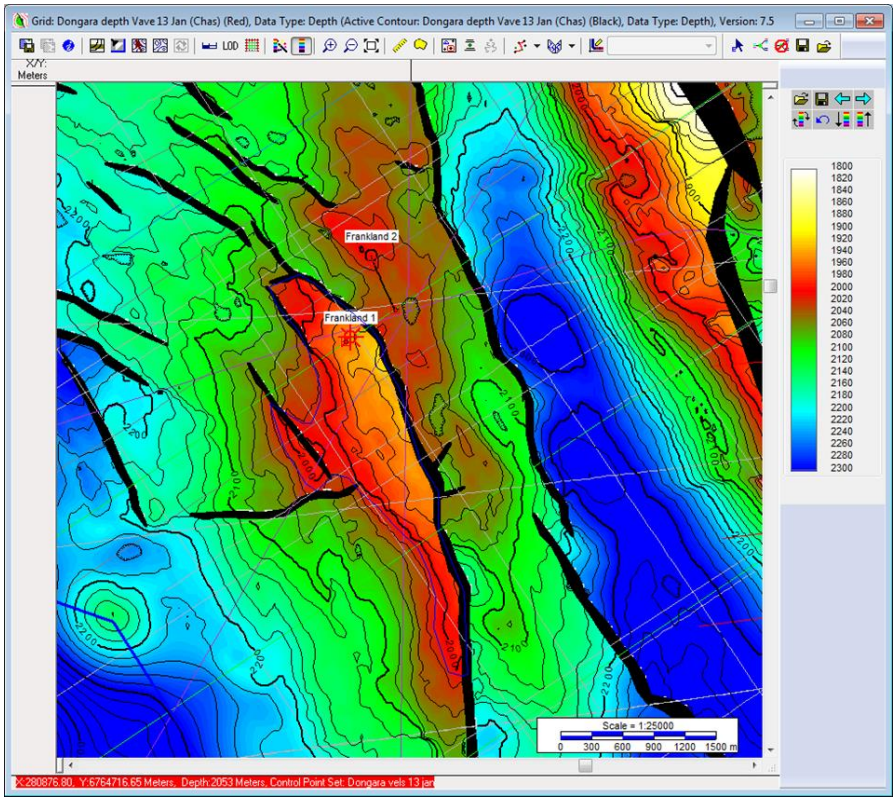


Figure 5-5: Frankland Top Dongara Sandstone Depth Map

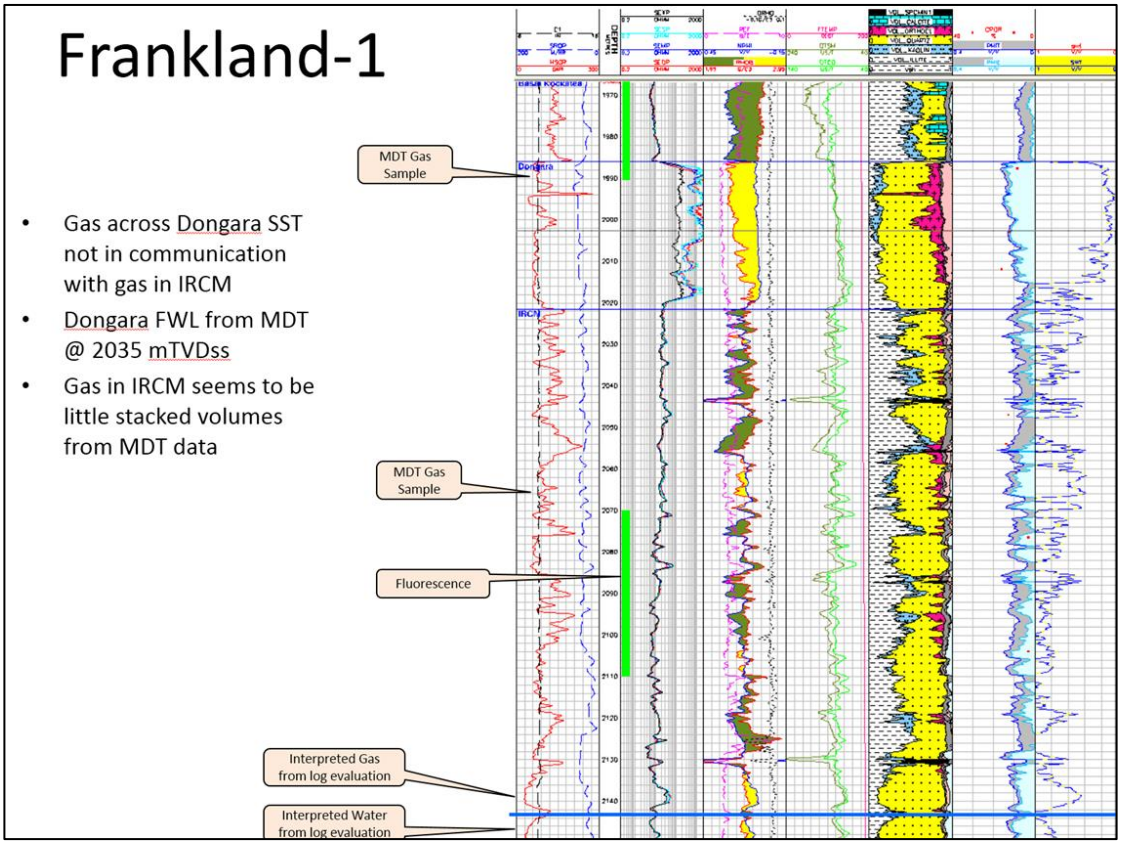


Figure 5-6: Frankland-1 Wireline Log Data

5.2.3. Perseverance Gas Discovery

The Perseverance-1 well in the north of WA-481-P encountered high CO_2 (45%) gas in the Bookara Member in another tilted fault block trap. The area of the trap is only 1.8km^2 and the Pilot estimated P50 volume of total recoverable gas is only 6 Bcf which is, by inspection, never likely to be economic.

All three discoveries indicate that the petroleum system is working and the play at the Bookra Member/ Dongara Sandstone, particularly in fault block traps, is working across the North Perth Basin, both onshore and offshore.

5.3. WA-481-P Prospects

Pilot's strategy has been to work up the prospects that exist around the discoveries in WA-481-P and Cliff Head oil field where success could create production hubs and lower the economic reserves threshold required. Four prospect trends are considered around Cliff Head, Leander Reef (also close to Cliff Head), Dunsborough and Frankland.

5.3.1. Cliff Head Prospects

Three prospects have been mapped in close proximity (less than 10km) from the producing Cliff Head oil field: Cliff Head SW, Cliff Head S and Twin Lions W. Cliff Head SW is one of the largest prospects in the portfolio and best placed to be able to provide an economic resource if a discovery there can be tied back through the Cliff Head oil field.

Cliff Head SW lies about 10km southwest of Cliff Head and is an easterly dipping three way dip closed structure mapped on 2D seismic data. The closure covers a maximum 9.5 km^2 with a relief of 100m at a depth of 1800m below sea level. Using Cliff Head oil field's reservoir parameters, Pilot's best estimate of Prospective Resources are 20 MMbbl in the Dongara Sandstone and 24.8 MMbbl in the IRCM with a GPOS of 16% and 20% respectively. Further details on the prospective resources can be found in the Prospective Resources section below.

Cliff Head S is a smaller lead on effectively the same fault terrace as the Cliff Head oil field. Again this is a three way dip closure dipping to the east. Pilot have mapped both structures as providing the migration pathway for oil coming from the deeper source kitchen in the west to the Cliff Head oil field structure. The closure covers 3.5 km^2 and has a relief of 60m at a depth of approximately 1500m. Prospective resources of 4 MMbbl and 8.7 MMbbl have been estimated for the best case in the Dongara Sandstone and IRCM respectively with a GPOS of 13% for the Dongara and 17% for the IRCM.

The Twin Lions W feature is a down faulted westerly dipping three way dip structure mapped on 2D seismic data immediately to the west of the Cliff Head oil field. It has a high risk of cross fault seal being inadequate as the Dongara reservoir will be juxtaposed against the IRCM. The structure has a maximum closure area of 7.5km 2 and a relief of 200m with a depth to target of approximately 1800m. Pilot's best estimate of the Prospective Resources are 24.6 MMbbl for the Dongara Sandstone and 19.6 MMbbl for the IRCM with a GPOS of 16% on both.

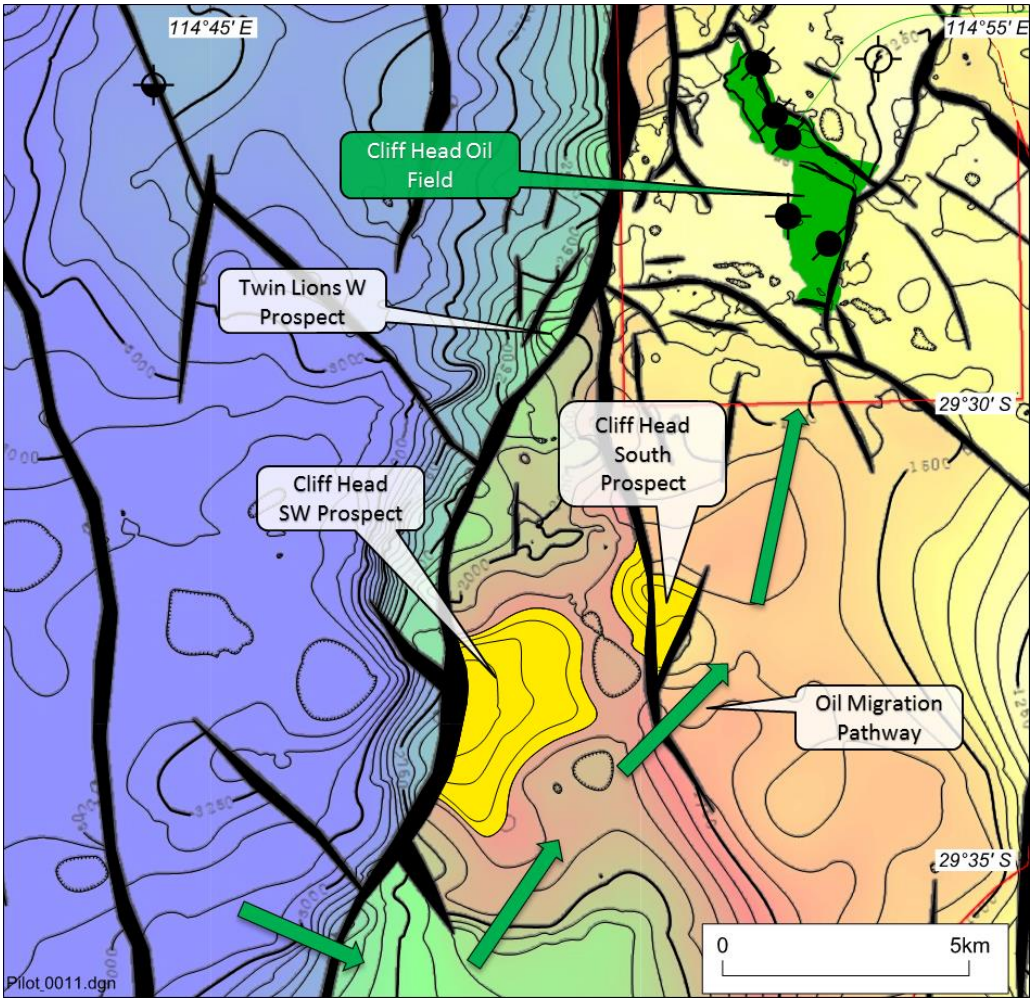


Figure 5-7: Cliff Head Prospects, Depth Map at Top Dongara Sandstone

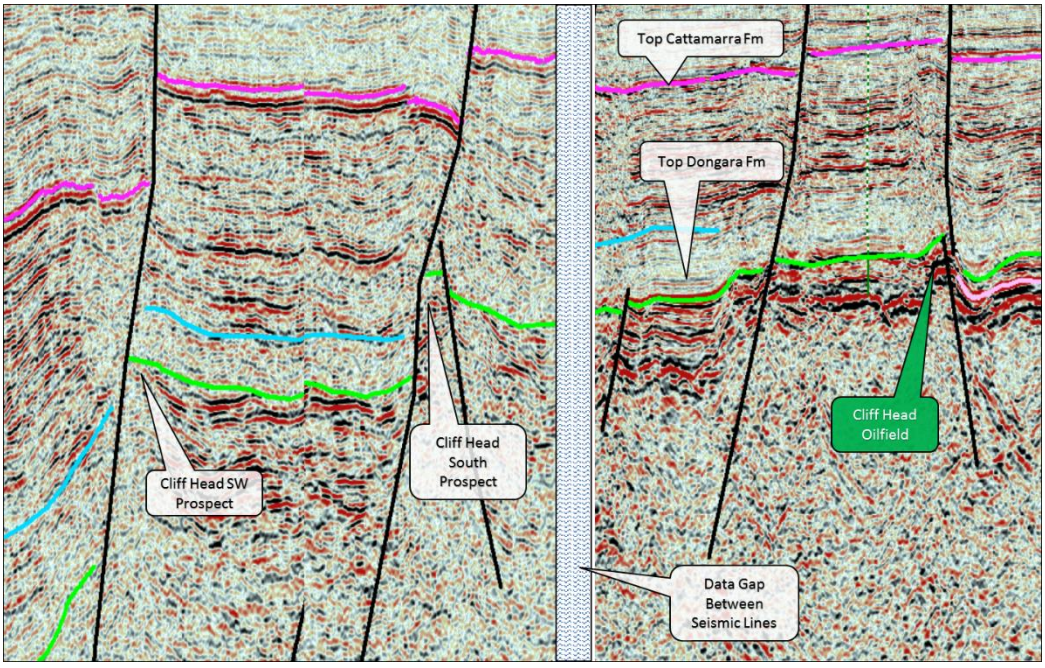


Figure 5-8: Cliff Head Prospects, Composite Seismic Line

5.3.2. Leander Reef Prospects

Three untested structures located between 7 and 15km west of Cliff Head oil field surround the Leander Reef-1 well which Pilot interpret as having missed the reservoir section of the Dongara Sandstone by drilling through the bounding fault of the upthrown structure (Figure 5-9).

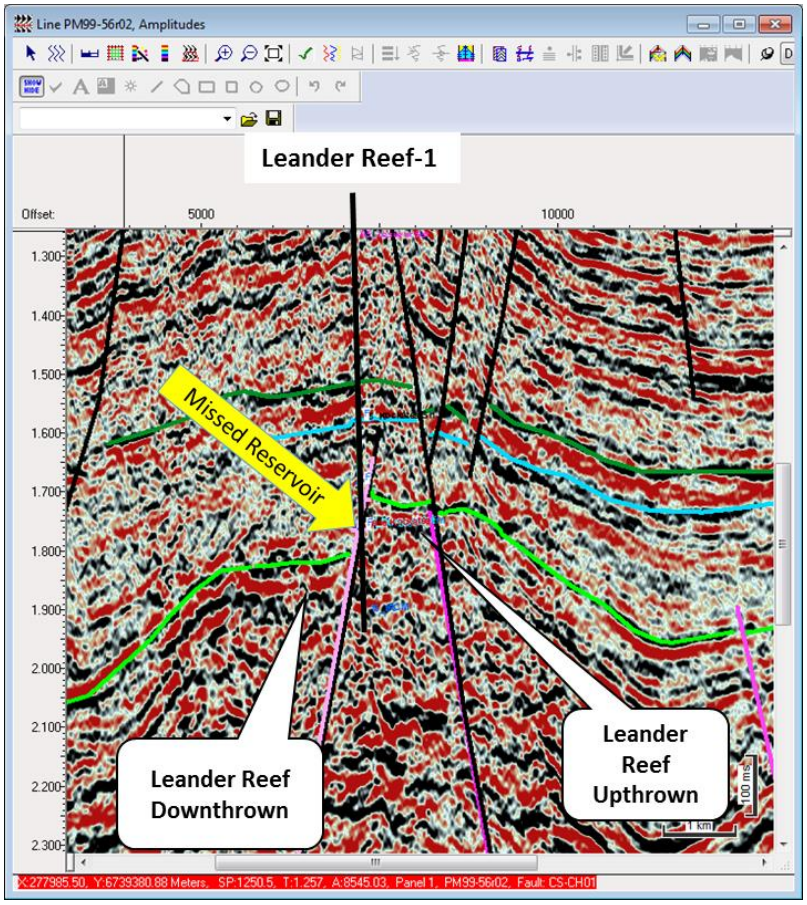


Figure 5-9: Leander Reef-1, 2D Seismic Line

Ideally a 3D seismic survey would be required to confirm this interpretation but the Leander Reef leads provide another economically positive target for successful development through the Cliff Head oil field.

The Leander Reef Upthrown lead covers an area of 23km^2 with 100m of relief at a depth of approximately 2700m below sea level. Best estimate Prospective Resources for the Dongara Sandstone are 46 MMbbl with a GPOS of 15%.

Leander Reef Downthrown has a mapped closure of 19.3 km^2 with a relief of 100m at a depth of 2800m. Pilot's Best estimate Prospective Resources for the Dongara Sandstone are 38 MMbbl with a GPOS of 8%.

Leander Reef West is a separate westerly dipping up-thrown three way dip structure with a mapped closure area of 7km^2, a vertical relief of 100m at a depth of 2760m below sea level. Best estimate Prospective resources are 14 MMbbl in the Dongara Sandstone with a GPOS of 15% according to Pilot.

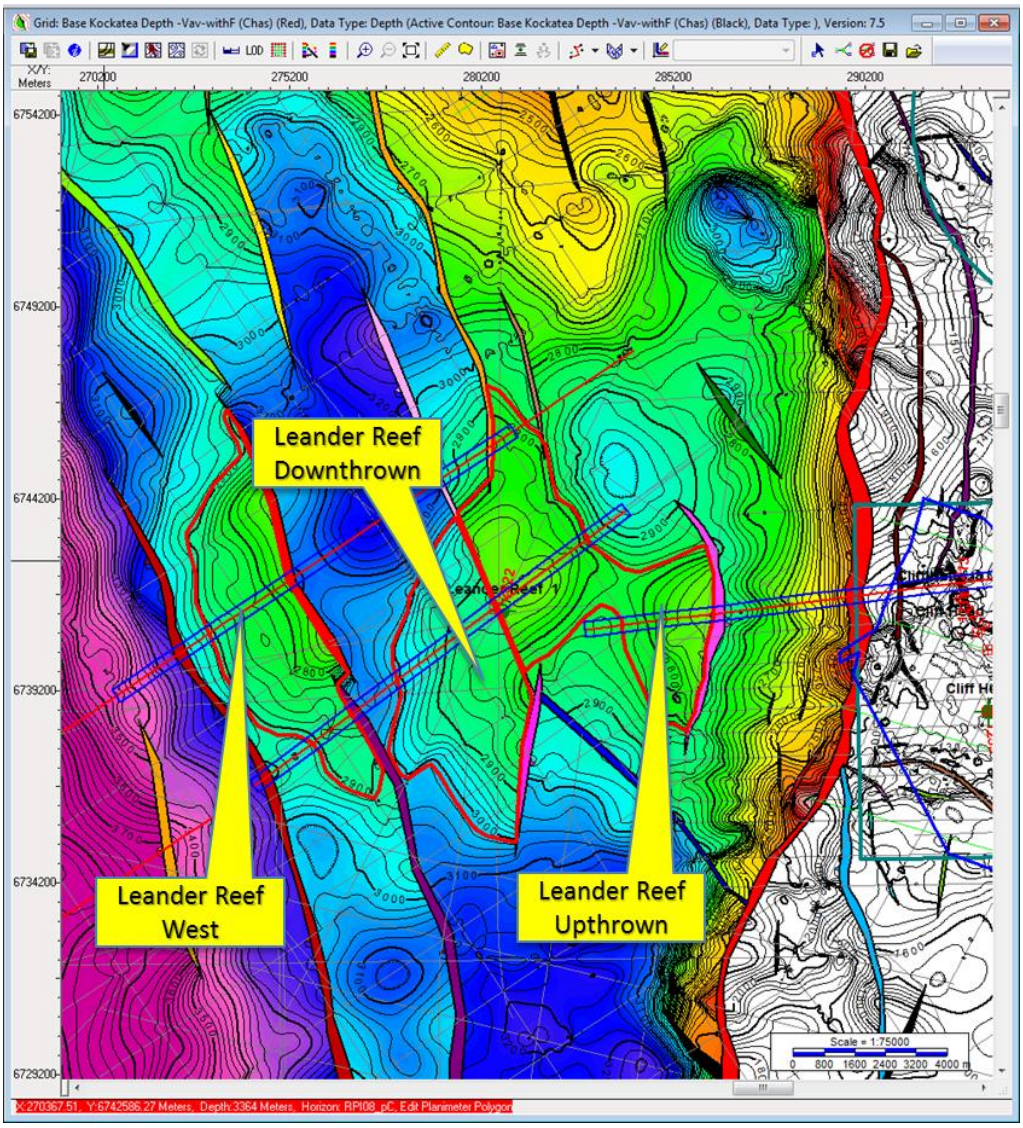


Figure 5-10: Leander Reef Prospects, Depth Map at Top Dongara Sandstone

5.3.3. Dunsborough Prospects

Three additional leads and prospects have been mapped in the Dunsborough oil discovery area: Bootenal, Burney and Yungarra/Yungarra NE. All are small but are considered to favour an oil charge like Dunsborough. Commerciality will require aggregation of two or more of these small potential oil discoveries.

Bootenal Lead is a tilted fault block with a closure area of 3.8km^2 and 100m of relief at 1200m below sea level. It is on the edge of the Diana 3D but requires more seismic data acquisition to confirm the structure. Pilot's best estimate Prospective Resources are 4.8 MMbbl in the Dongara and 3.1 MMbbl in the IRCM with a GPOS of 24% in both. Alternatively, if gas filled the structure would contain a sub-economic 20 Bcf across both reservoirs.

The Burney Lead is located in the Diana 3D and is a slightly more complex tilted fault block with a maximum closure of 3.4km^2 and 70m of relief at 1200m. Pilot's best estimate of Prospective Resources are 2.7 MMbbl in the Dongara and 1.4 MMbbl in the IRCM with a GPOS of 24% for both. This RISC believe is too small to be considered as an economically viable drilling target and will not appear in the Prospective Resources table.

The Yungarra Lead is a fault block and Yungarra NE is an adjacent four way closure which expands the up-dip Yungarra lead in area from 2 km^2 to 3.3 km^2 in the high side case. Pilot's best estimate Prospective Resources are 6.3 MMbbl for the Dongara sandstone and 1.6 MMbbl for the IRCM again with a GPOS of 24%.

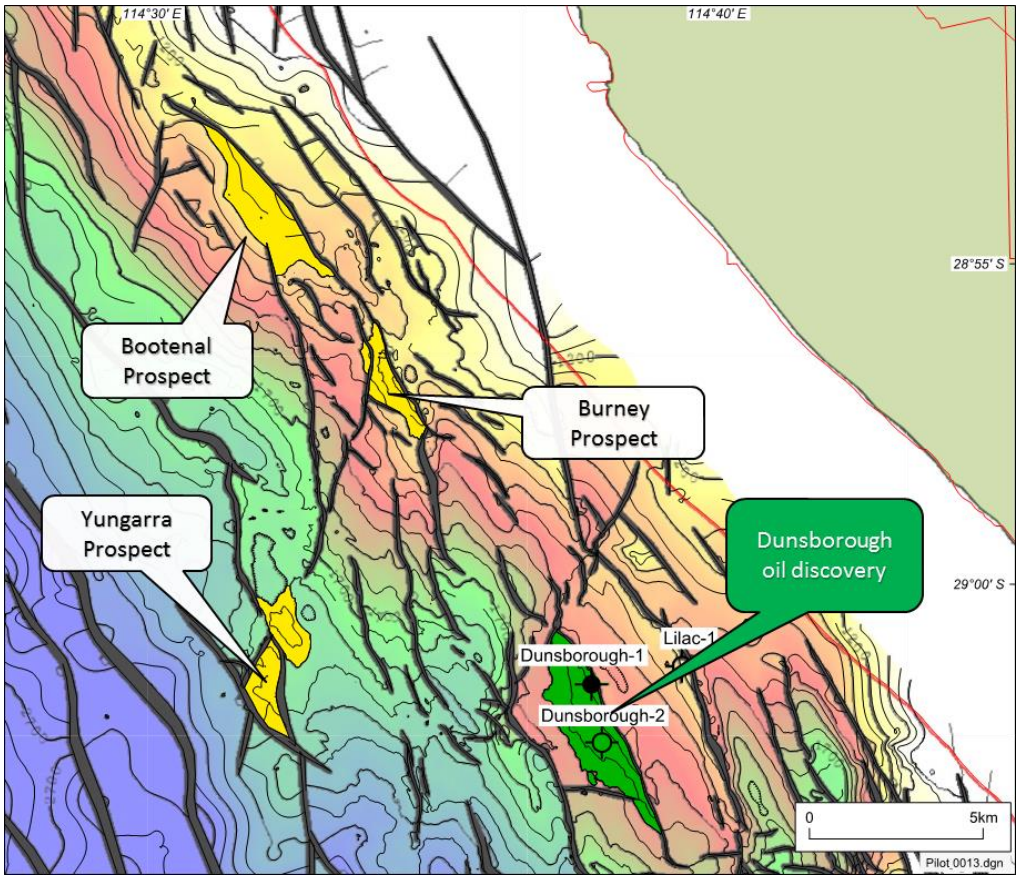


Figure 5-11: Dunsborough Prospects, Depth Map at Top Dongara Sandstone

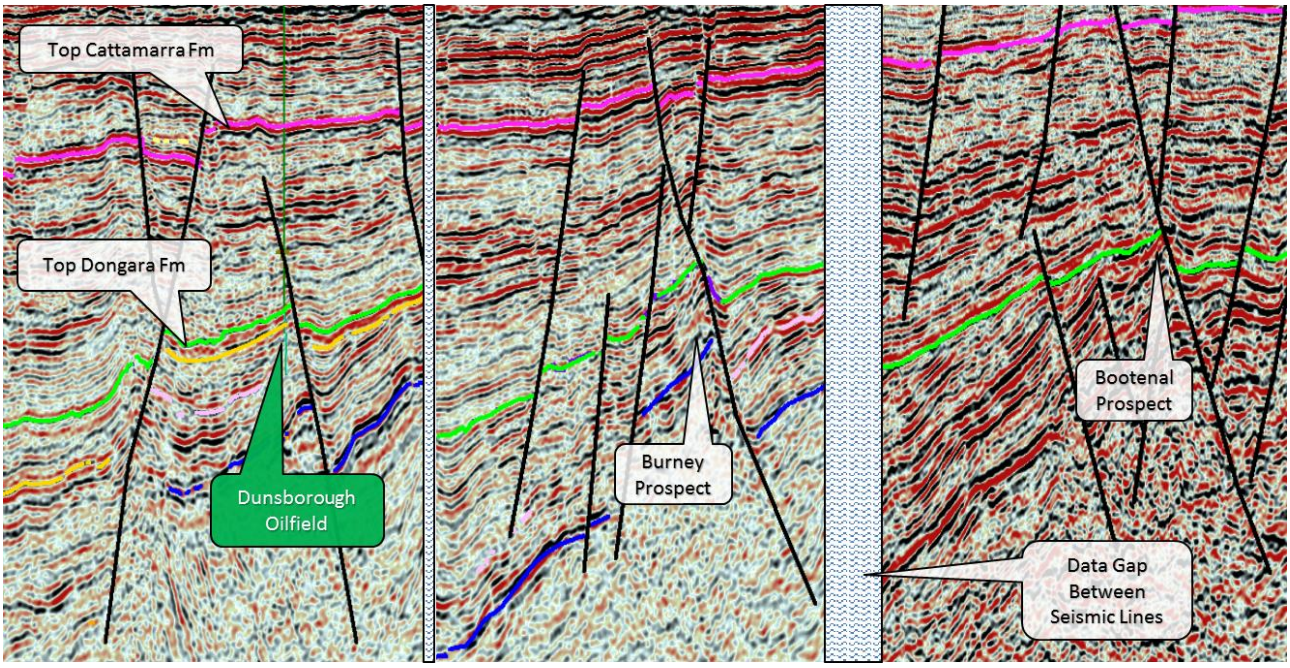


Figure 5-12: Dunsborough Prospects, Composite Seismic Line

5.3.4. Frankland Prospects

Two additional prospects, Frankland NE and Frankland NE2 (Figure 5-13 and Figure 5-14), lie within 10km of the Frankland-1 gas discovery documented above. Pilot calculate that discovery of additional gas in the area would result in a commercial development by tying the fields into the onshore Dongara gas facilities which lie 20km to the east.

Frankland NE is an elongate north northwest – south southeast tilted fault block structure with a modest closure of up to 1.7km^2 and a relief of 160m at a depth of 1700m. Pilot estimate the P50 Prospective resources in the Dongara Sandstone at 12 Bcf and in the IRCM at 4 Bcf with a GPOS of 31% and 27% respectively. For further details on prospective resources please see the Prospective Resources section below.

Frankland NE2 (10km to the NE of Frankland-1) is another tilted fault block with 2.7km^2 of closure and 100m of structural relief with a shallower depth of burial at 1150m. Pilot estimates P50 Prospective Resources of 22 Bcf in the Dongara Sandstone and 8 Bcf in the IRCM with GPOS of 27% and 23% respectively.

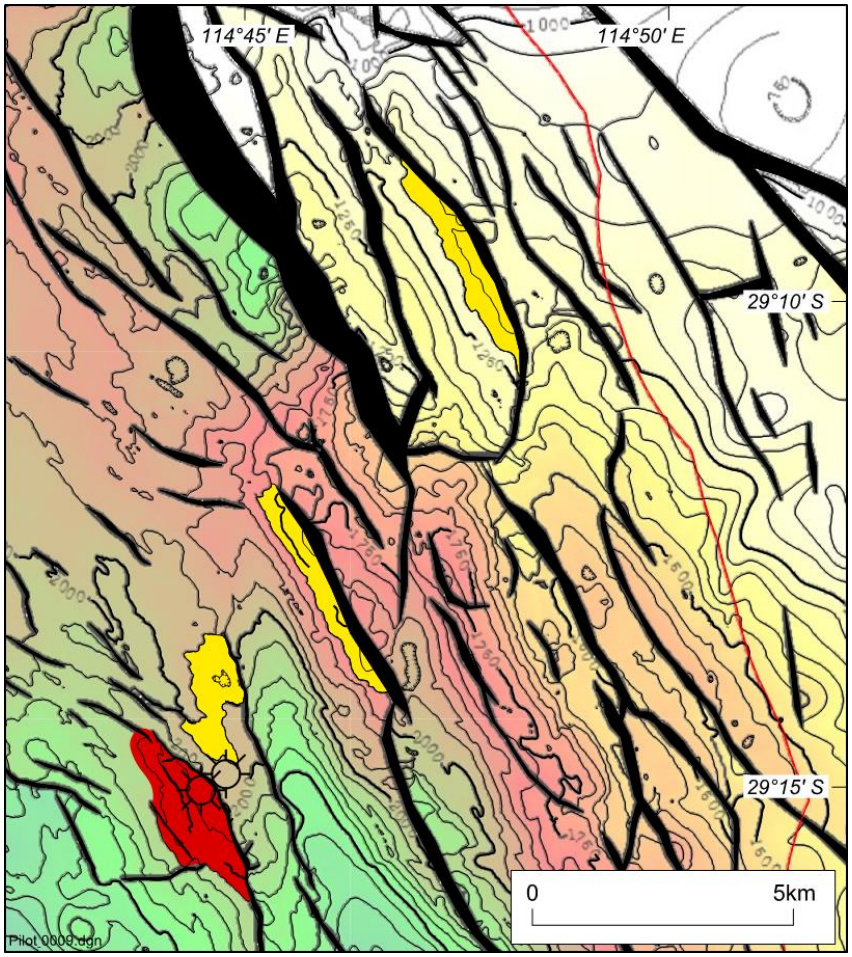


Figure 5-13: Frankland Prospects, Depth Map at Top Dongara Sandstone

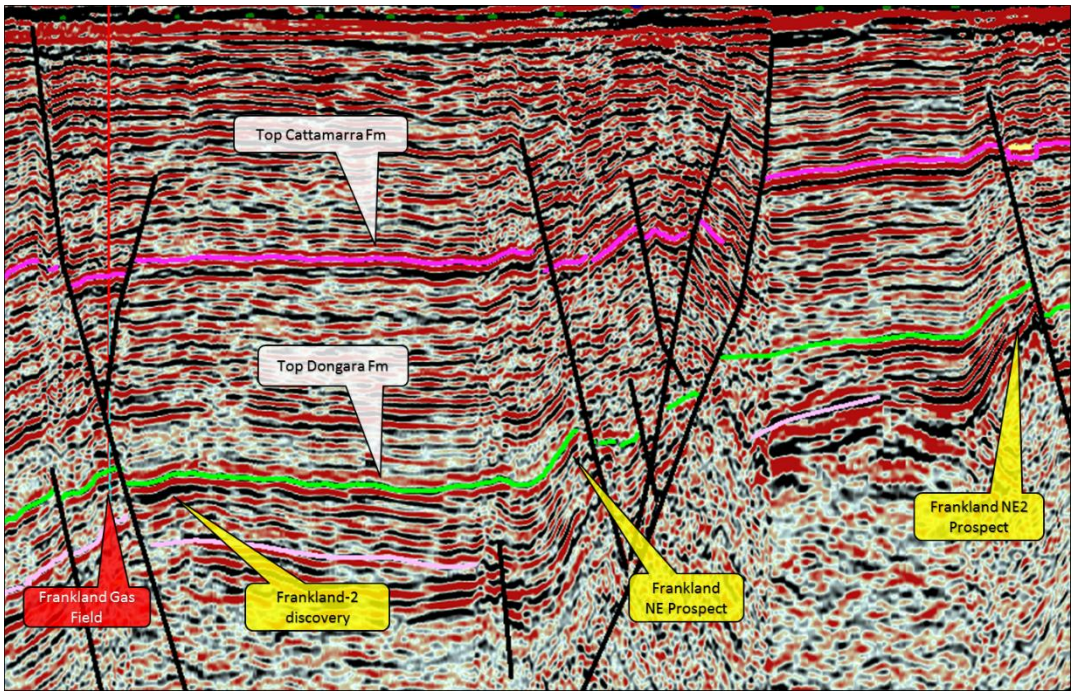


Figure 5-14: Frankland Prospects, Seismic tie line

5.4. WA-481-P Contingent Resources

WA-481-P contains Contingent Oil Resources in Dunsborough oil field and Contingent Gas Resources in the Frankland gas field. Neither are currently commercially viable as standalone developments but could be developed with other future discoveries in the area or if the commodity price was significantly higher or other inducements were offered by the government.

Pilot has calculated the Contingent Resources using a probabilistic method that RISC has also followed and found that Pilot's estimates are reasonable.

Table 5-1: Pilot's WA-481-P Contingent Oil Resources as at 18 May 2017

Oil (MMbbl)	Contingent Resources		
	1C	2C	3C
Dunsborough – Dongara Sandstone	2.4	4.2	6.8
Dunsborough - IRCM	0.9	1.8	3.0
Dunsborough Total Gross (100%)	3.3	6.0	9.8
Net attributable to Pilot (60% WI)	2.0	3.6	5.9

Notes:

1. "Gross" are 100% of the resources attributable to the licence.
2. "Net attributable to Pilot (60% WI)" based on Pilot's current working interest.
3. Note arithmetic aggregation of the Resources in the Dongara and IRCM reservoirs, as a result RISC cautions that the 1C aggregate quantities may be very conservative estimates and the 3C aggregate quantities may be very optimistic due to portfolio effects.

Table 5-2: Pilot's WA-481-P Contingent Gas Resources as at 18 May 2017

Gas (Bcf)	Contingent Resources		
	1C	2C	3C
Frankland – Dongara Sandstone	23.4	33.0	46.1
Frankland - IRCM	6.0	8.6	12.8
Frankland Total Gross (100%)	29.4	41.6	58.9
Net attributable to Pilot (60% WI)	17.6	25.0	35.3

Notes:

1. "Gross" are 100% of the resources attributable to the licence.
2. "Net attributable to Pilot (60% WI)" based on Pilot's current working interest.
3. Note arithmetic aggregation of the Resources in the Dongara and IRCM reservoirs, as a result RISC cautions that the 1C aggregate quantities may be very conservative estimates and the 3C aggregate quantities may be very optimistic due to portfolio effects.

5.5. WA-481-P Prospective Resources

WA-481-P contains Prospective Resources of both oil and gas as described in the sections above. RISC has reviewed the inputs and methodologies employed by Pilot to arrive at the probabilistic ranges of prospective resources in each prospect and has found them to be reasonable. The following tables summarize the Prospective Resources for oil and gas in WA-481-P.

Table 5-3: Pilot's WA-481-P Prospective Oil Resources as at 18 May 2017

Oil Prospects	Gross (100%) on block MMbbl			Net Pilot (60%) on block MMbbl			GPOS (%)
	Low	Best	High	Low	Best	High	
Cliff Head SW - Dongara	11.0	20.0	35.0	6.6	12.0	21.0	16%
Cliff Head SW - IRCM	14.0	24.8	43.4	8.4	14.9	26.0	20%
Cliff Head SW Total	25.0	44.8	78.4	15.0	26.9	47.0	
Cliff Head S - Dongara	2.1	4.0	7.3	1.3	2.4	4.4	13%
Cliff Head S - IRCM	4.8	8.7	15.4	2.9	5.2	9.2	17%
Cliff Head S Total	6.9	12.7	22.7	4.1	7.6	13.6	
Twin Lions W - Dongara	13.0	24.6	43.4	7.8	14.8	26.0	16%
Twin Lions W - IRCM	11.5	19.6	32.4	6.9	11.8	19.4	16%
Twin Lions W Total	24.5	44.2	75.8	14.7	26.5	45.5	
Leander Reef Upthrown	26.5	46.1	78.1	15.9	27.7	46.9	15%
Leander Reef Downthrown	21.4	38.0	66.3	12.8	22.8	39.8	8%
Leander Reef West	8.0	14.0	23.6	4.8	8.4	14.2	15%
Bootenal - Dongara	2.3	4.8	9.1	1.4	2.9	5.5	24%
Bootenal - IRCM	1.8	3.1	5.0	1.1	1.9	3.0	24%
Bootenal Total	4.1	7.9	14.1	2.5	4.7	8.5	
Yungarra - Dongara	3.0	6.3	11.9	1.8	3.8	7.1	24%
Yungara - IRCM	0.9	1.6	2.7	0.5	1.0	1.6	24%
Yungara Total	3.9	7.9	14.6	2.3	4.7	8.8	
Total	**120.3**	**215.6**	**373.6**	**72.2**	**129.4**	**224.2**	

1. Probabilistic methods have been used.
2. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.

Table 5-4: Pilot's WA-481-P Prospective Gas Resources as at 18 May 2017

Gas Prospects	Gross (100%) on block Bcf			Net Pilot (60%) on block Bcf			GPOS (%)
	Low	Best	High	Low	Best	High	
Frankland NE - Dogara	7.4	12.0	18.6	4.4	7.2	11.2	31%
Frankland NE - IRCM	2.3	3.8	6.0	1.4	2.3	3.6	27%
Frankland NE Total	9.7	15.8	24.6	5.8	9.5	14.8	
Frankland NE2 - Dongara	13.5	21.8	33.5	8.1	13.1	20.1	27%
Frankland NE2 - IRCM	4.8	8.0	12.2	2.9	4.8	7.3	23%
Frankland NE2 Total	18.3	29.8	45.7	11.0	17.9	27.4	
Total	**28.0**	**45.6**	**70.3**	**16.8**	**27.4**	**42.2**	

1. Probabilistic methods have been used.
2. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.

5.6. Status of the Committed Program

WA-481-P was awarded to Murphy Oil subsidiary, Murphy Australia WA-481-P Oil Pty Ltd, on 20 August 2012. On 27 July 2016 Murphy Oil assigned its 100% interest to Pilot Energy Limited and on the 29 July Pilot assigned 40% interest to Key Petroleum Limited.

WA-481-P is currently in year 4, which runs to 19 August 2017, of a six year term. The current year's work program is for geological and geophysical studies. Pilot as operator has requested a variation to the Year's 5 and 6 work program which both contain a commitment to drill one well if the permit is not surrendered prior to entry into the permit year. The application is for carrying out 3D and 2D seismic reprocessing along with geological and geophysical studies in year 5 with an indicative value of A$550,000. In year 6 Pilot have proposed 3D seismic inversion and fluid modelling studies with further geological and geophysical studies for an indicative cost of A$300,000.

RISC has relied on Pilot's documentation of applications and permit awards to ascertain the permit status.

Pilot and their joint venture partner intend to farm down their equity to fund exploration drilling and have started a farmout process.

The WA-481-P permit details and work program are shown in Table 5-5.

Table 5-5: WA-481-P Permit Details and Work programme

Permit	Operator	Interest	Status	Permit Expiry Date	Work Commitments
WA-481-P	Pilot	Pilot 60% Key Petroleum 40%	Exploration Licence	19 August 2019	Year 5– 2D & 3D Reprocessing A$0.55 million Year 6– G&G Inversion studies A$0.3 million

5.7. Exploration Program Costs

Reprocessing of the Diana 3D which covers some of the Frankland area leads will cost around A$350,000 estimated in the variation application and reprocessing 2D data around Cliff Head will cost around A$100,000 depending on the quantity and techniques applied. Thus RISC confirms the committed program costs outlined above for years 5 and 6 are the likely budgets that will be required.

A well will have to be factored into the first three years of the permit renewal starting 20 August 2019. RISC has reviewed the dry hole well cost estimate and concludes that a well in 20m of water that will be drilled with a jack-up rig of convenience to minimise mobilisation costs to a prospect depth of 1900m would cost US$15 - 20 million dollars based on prevailing jack-up rig rates.

5.8. WA-481-P Valuation

RISC has used the potential value to Pilot of WA-481-P being farmed out to a third party who will pick up a proportion of future costs to explore the permit at a premium to their earned interest cost. The premium is equal to the value to Pilot.

While it is recognized that the permit contains discovered resources, these are expected to be currently sub-economic, but may potentially become economic in the future. In our opinion in view of the relatively modest contingent resources and in the current market, we would not expect a farminee to pay for the resources in the ground. They may be prepared to pay a contingent fee should they become economic in future or alternatively be prepared to pay a higher promote in recognition of the proven petroleum potential of the permit that the discoveries demonstrate. In this case, we have adopted a higher promote to value the permit.

In the low case we have assumed that a farminee will pay a 4:1 carry of the full cost of the current seismic reprocessing and inversion work program (US$0.65 million). The high promote is based on existing interest in this type of transaction to gain a cheap option to participate in drilling at ground floor cost. This values Pilot's 60% share at US$1.2 million.

In the mid case RISC has assumed Pilot farm out only the well for a 1.5:1 carry on a well costing US$17 million. This values Pilot's 60% at US$5.1 million. RISC sees the attraction of the proximity of Cliff Head infrastructure as creating a greater likelihood that WA-481-P will achieve a reasonable promote on a well.

In the high case the carry on the well is increased to 1.75:1 valuing Pilot's equity at US$7.7 million.

6. EP416 and EP480 (60% WI and Operator)

6.1. Overview

The EP416 and EP480 permits are located in the southern Perth Basin, on the coast of Western Australia between the towns of Mandurah and Bunbury (Figure 6-1). The contiguous blocks have a combined area of 2,310km^2 and have only been sparsely explored with only 2 wells drilled in the 1960's and one recent well, GSWA Harvey-1, drilled by the government as part of the carbon geosequestration study in 2012.

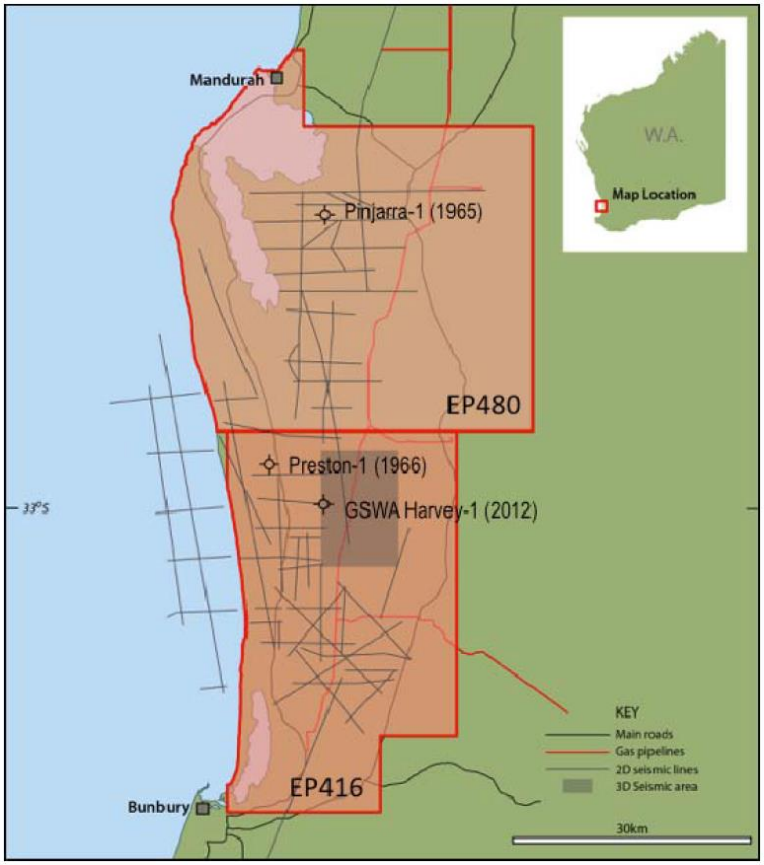


Figure 6-1: Location Map – EP416 and EP480

Pilot has farmed into both permits and under an agreement with Empire Oil Limited, Pilot funded the cost of the airborne geophysical survey acquired over the permits by Empire Oil Limited. Pilot has earned a 60% interest in EP416 and EP480 and assumed operatorship of both permits. The assignment of the interest and operatorship has been approved by the West Australian Department of Mines and Petroleum.

Exploration in the Perth Basin in the past has been focused in the northern part of the basin with the southern part only lightly explored. The limited drilling in the two permits has confirmed the presence of a Permian petroleum system with the primary reservoir target being the Permian Sue Group sandstones and the Triassic age Lesueur sandstones. It is proposed that gas will be generated from mature Permian coal measures (Figure 6-2) located in kitchens within the permits.

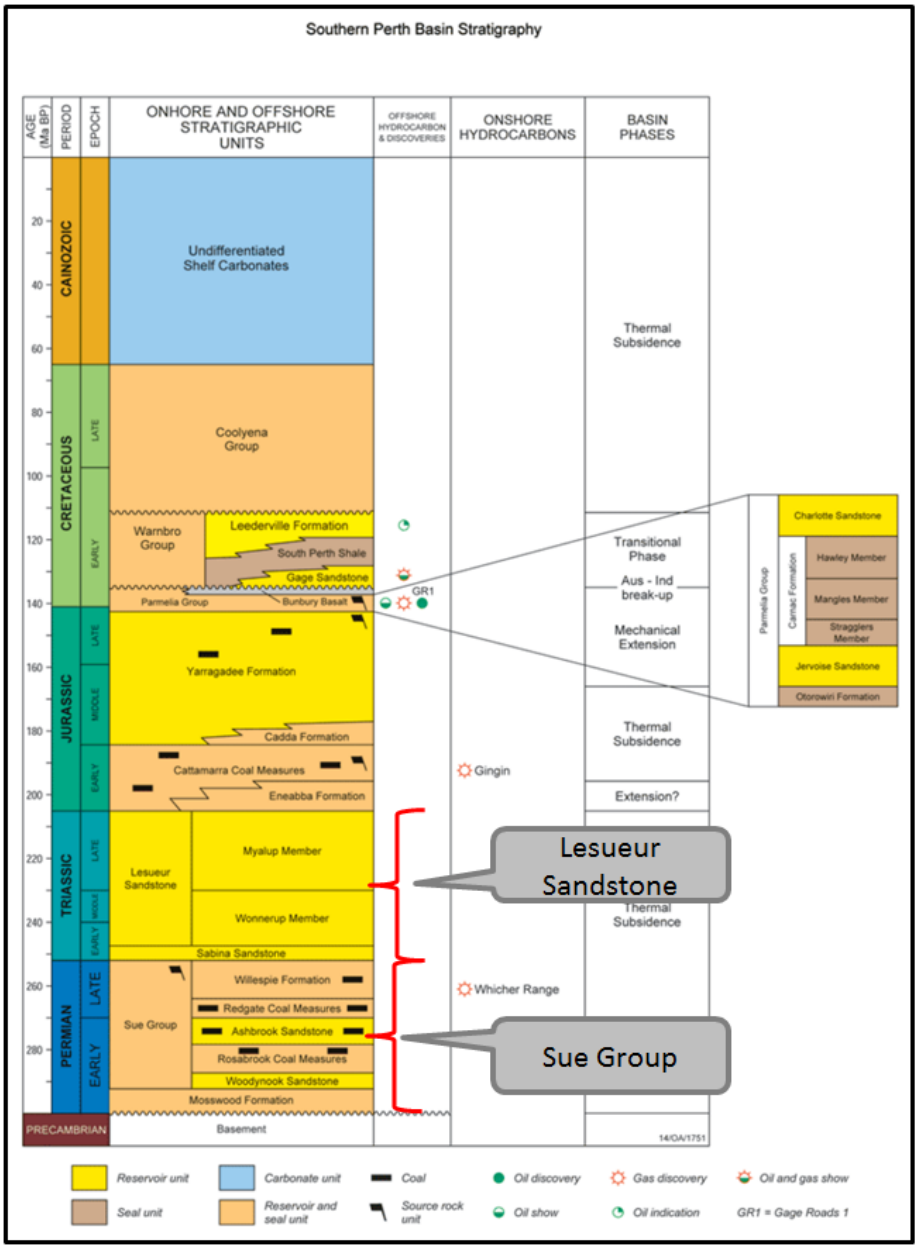


Figure 6-2: Southern Perth Basin Stratigraphy

6.2. Leschenault Prospect

Existing 2D seismic data confirms the Leschenault Prospect which is a large faulted anticline structure straddling both permits, with up to 240km^2 of mapped areal closure at the Top Permian, Sue Group sandstone level (Figure 6-3). The reservoir target is currently at a depth of 2250 – 2500m but was previously buried deeper before an estimated 600m of uplift occurred during the Jurassic rifting making the quality of the reservoir a minor concern. The porosity of the Sue Group is as low as 3% in Lake Preston-1 and about 5% in Whicher Range, both deeper than at Leschenault. Pilot have analysed the pre-uplift average depth of burial of the Leschenault Prospect target to be 3350m providing an average 7% porosity from the calibrated porosity depth curve with good evidence from the Harvey-1 well that it could be higher.

The top seal is provided by the Eneabba Formation which over lies the Lesueur Sandstone and is 209m thick at Lake Preston-1. Top seal and cross-fault seal are the major risk for the prospect.

The regional gravity data shows the presence of a depocentres in the northeastern and eastern part of the permit. The prospect is located updip of these possible “gas kitchens” on the flank of a regional gravity high. The Sue Coal Measures are known to be a source for gas in the basin with TOC up to 54%. They are likely to be generating at the present day but not as well as they have done before the Jurassic uplift.

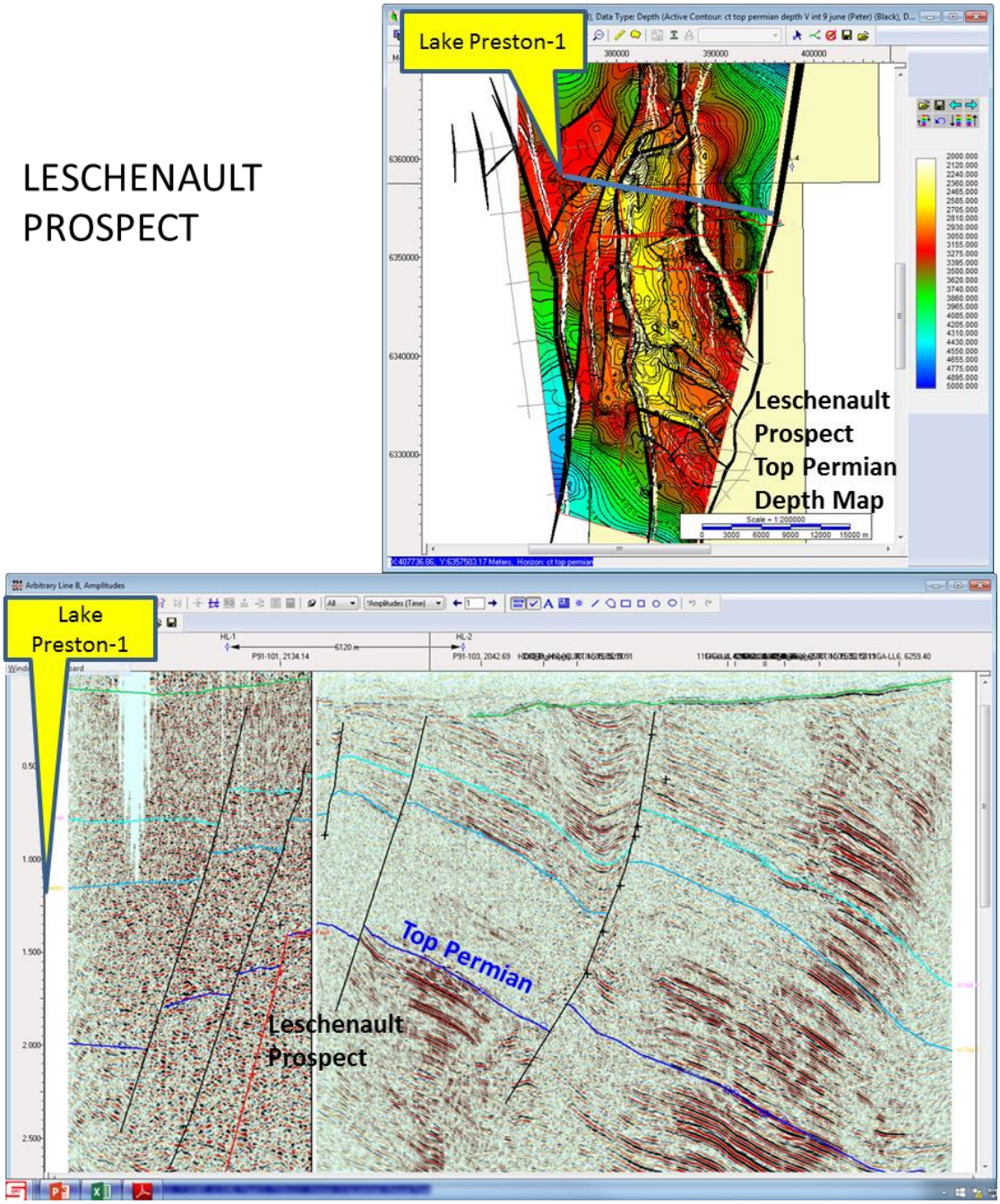


Figure 6-3: EP416 and EP480 Leschenault Prospect

6.3. EP416 and EP480 Prospective Resources

RISC was commissioned by Pilot Energy Ltd ("Pilot") to audit their prospective resource assessment of the Leschenault Prospect in October 2016. Pilot Energy has a 60% interest and is Operator of both permits. Empire Oil & Gas holds the remaining 40%.

The Leschenault prospect prospective resource estimates are given in Table 6-1.

There would be a ready gas market in the event of success as EP480 and EP416 are close to a local mining and refining industries, which are served by the Dampier to Bunbury Natural Gas Pipeline (DBNGP) which runs through the permits.

Table 6-1: Pilot's EP 461 and EP480 Prospective Resources (RISC) as at 31st October 2016

Leschenault Prospect Reservoir	Gross (100%) Bcf			Net Pilot Bcf (60%)			GPOS (%)
	Low	Best	High	Low	Best	High	
Lesueur Sandstone	150	435	970	90	260	580	5%
Sue Sandstone	120	290	625	70	175	375	10%
Total	270	725	1595	160	435	955	

1. Probabilistic methods have been used.
2. The Leschenault prospect is prospective for gas.
3. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.
4. The volumes are rounded to the nearest 5 Bcf

The key primary target is the Sue Sandstone. The nearby Whicher Range field is a direct analogue for this reservoir, although the reservoir is shallower in the Leschenault prospect.

The prospect is in an underexplored area of Southern Perth Basin, and is therefore high risk. The key risk is seal (top and cross-fault). Given the limited data, it is hard to quantify the probability of success, but we expect it to lie around 5% for the Lesueur sandstone and around 10% for the Sue sandstone. Pilot plan to carry out surface geochemical surveys to detect signs of hydrocarbons. If successful, this will decrease the source risk of the prospect.

6.4. Status of Committed Program

The EP416 permit was renewed on 14 October 2016. The work programme has geochemical surveying and AGG processing in permit year 1, G&G studies in years 2 to 3, and an exploration well in year 4. (Table 6-2). RISC has relied on government documentation of previous approvals and permit awards provided by Pilot to ascertain the permit status.

Table 6-2: EP416 Permit Details and Work Programme

Permit	Operator	Interest	Status	Permit Expiry Date	Proposed Renewal Work Programme
EP416	Pilot	Pilot 60% Empire 40%	Exploration Licence	13 October 2021	Year 1: Geochem Survey A$0.10 million Gravity Processing, A$0.10 million G&G studies, A$0.15 million Year 2: G&G Studies, A$0.20 million Year 3: G&G Studies, A$0.40 million Year 4: 1 well A$5.00 million Year 5: G&G studies, A$0.20 million

The EP480 permit was originally granted on 6 June 2012 and the same farmin terms apply to this permit as to EP416. The six year permit work programme details are given in Table 6-3. The permit is currently in Year 2, which has been extended for 3 months to 30 June 2017 to provide sufficient time for commencement of the geochemical survey that was approved as a replacement for the previous 2D seismic work commitment. Year 3 runs concurrently with the extended year 2, and commenced on 1 April 2017.

RISC has relied on government documentation of approvals and permit awards provided by Pilot to ascertain the permit status.

Table 6-3: EP480 Permit Details and Work programme

Permit	Operator	Interest	Status	Permit Expiry Date	Work Programme
EP480	Empire	Pilot 60% Empire 40%	Exploration Licence	31 March 2020	Year 1: G&G studies A$0.25 million Year 2: Geophysical survey A$0.27 million Year 3: Geochem Survey A$0.10 million Gravity Processing A$0.10 million G&G studies A$0.15 million Year 4: G&G studies A$0.15 million Year 5: 1 well A$4.50 million Year 6: G&G studies A$0.10 million

6.5. Exploration Program Costs

Well costs to drill a 3000m well in this area are likely to be in the US$5-8 million dollar range on a dry hole basis. In 2012 Harvey-1 was drilled to a total depth of 2945m in 44 days. The geochemical survey is expected to cost approximately A$160,000.

6.6. EP416 and EP480 Valuation

RISC has used the potential value to Pilot of EP416 and EP480 being farmed out to a third party who will pick up a proportion of future costs to explore the permit at a promote to their earned interest cost.

In the low case we have assumed that a farminee will pay a 1.15:1 carry of the full cost of the well (US$8 million). This values Pilot's 60% share at US$0.7 million.

In the mid case RISC has assumed Pilot farm out the well only for a 1.25:1 carry on the same well cost. This values Pilot's 60% at US$1.2 million.

In the high case the carry on the well is increased to 1.75:1 valuing Pilot's equity at US$3.6 million.

7. EP437 (13.058% WI)

7.1. Overview

The EP437 permit is located in the northern Perth Basin, on the coast of, Western Australia between the towns of Geraldton and Dongara (Figure 7-1). Past exploration in the area has discovered the commercial gas field at Dongara and the oil fields at Jingemia/Hovea and Mt Horner. The offshore Cliff Head oil field is located 28km to the south. The permit has an area of 720km^2 and has a moderate level of exploration drilling, especially in the south of the permit.

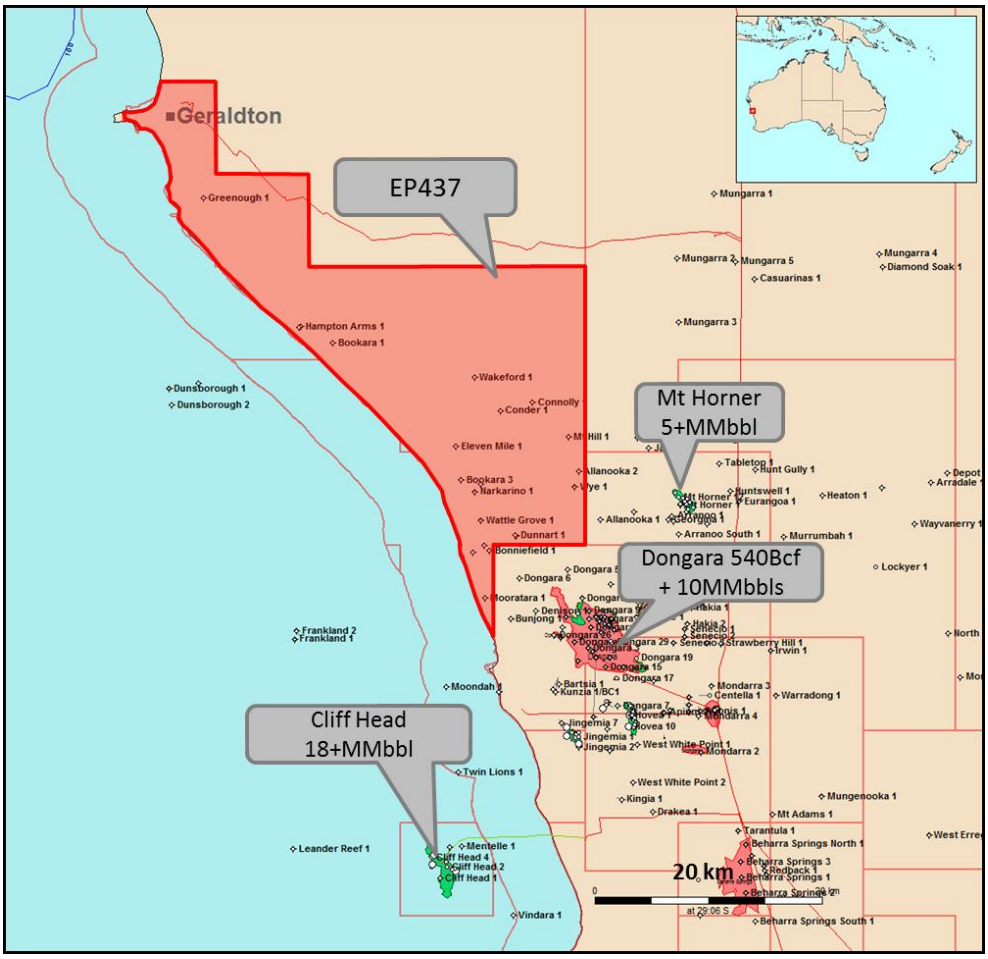


Figure 7-1: Location Map EP437

Pilot acquired an interest in EP437 through an agreement with Caracal Exploration Pty Ltd. The assignment of interest has recently been approved by the West Australian Department of Mines & Petroleum. The joint venture interests subsequent to the assignment are:

Key Petroleum Ltd	43.471% (Operator)
Rey Resources Ltd	43.471%
Pilot Energy Ltd	13.058%

EP437 provides Pilot with participation in a low cost onshore oil and gas play, in a permit in which past drilling has established a working petroleum system and prospects have been mapped on trend with adjacent oil and gas discoveries. The proximity to infrastructure in this part of the Perth Basin enables even small discoveries to potentially be commercialized.

Preliminary interpretation by Pilot of existing well and seismic data has matured three; shallow prospects, all updip from the Dunnart-1 and 2 wells which both had oil shows. The primary reservoir targets are the early Triassic Arranoo Member sandstones and the Late Permian Bookara Member sandstones (Figure 7-3).

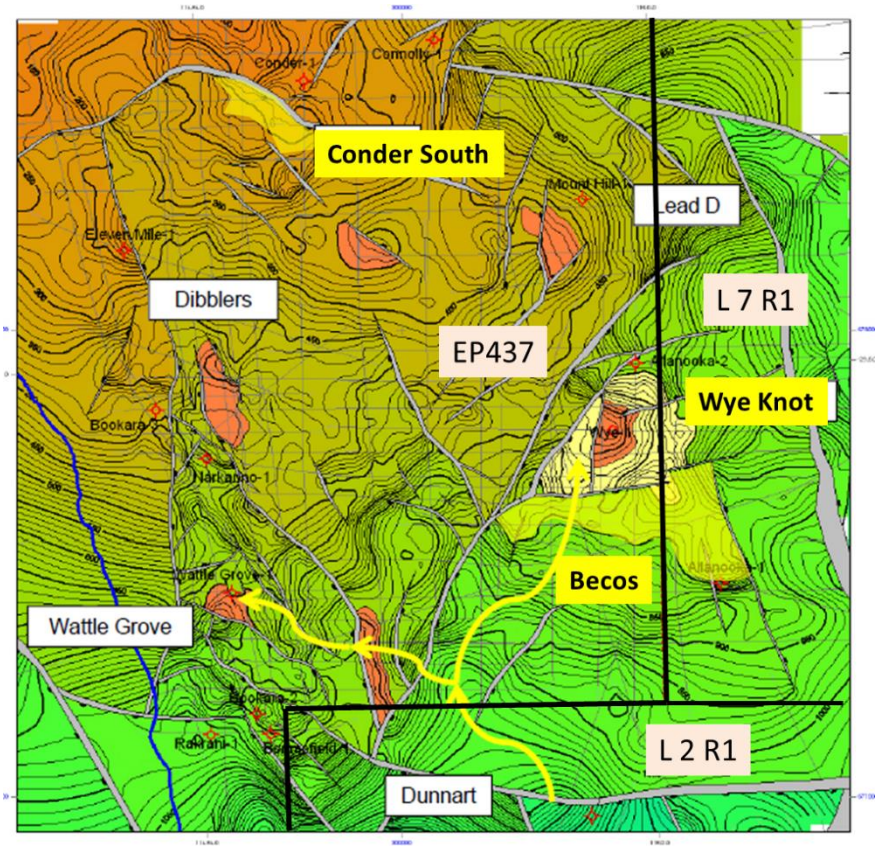
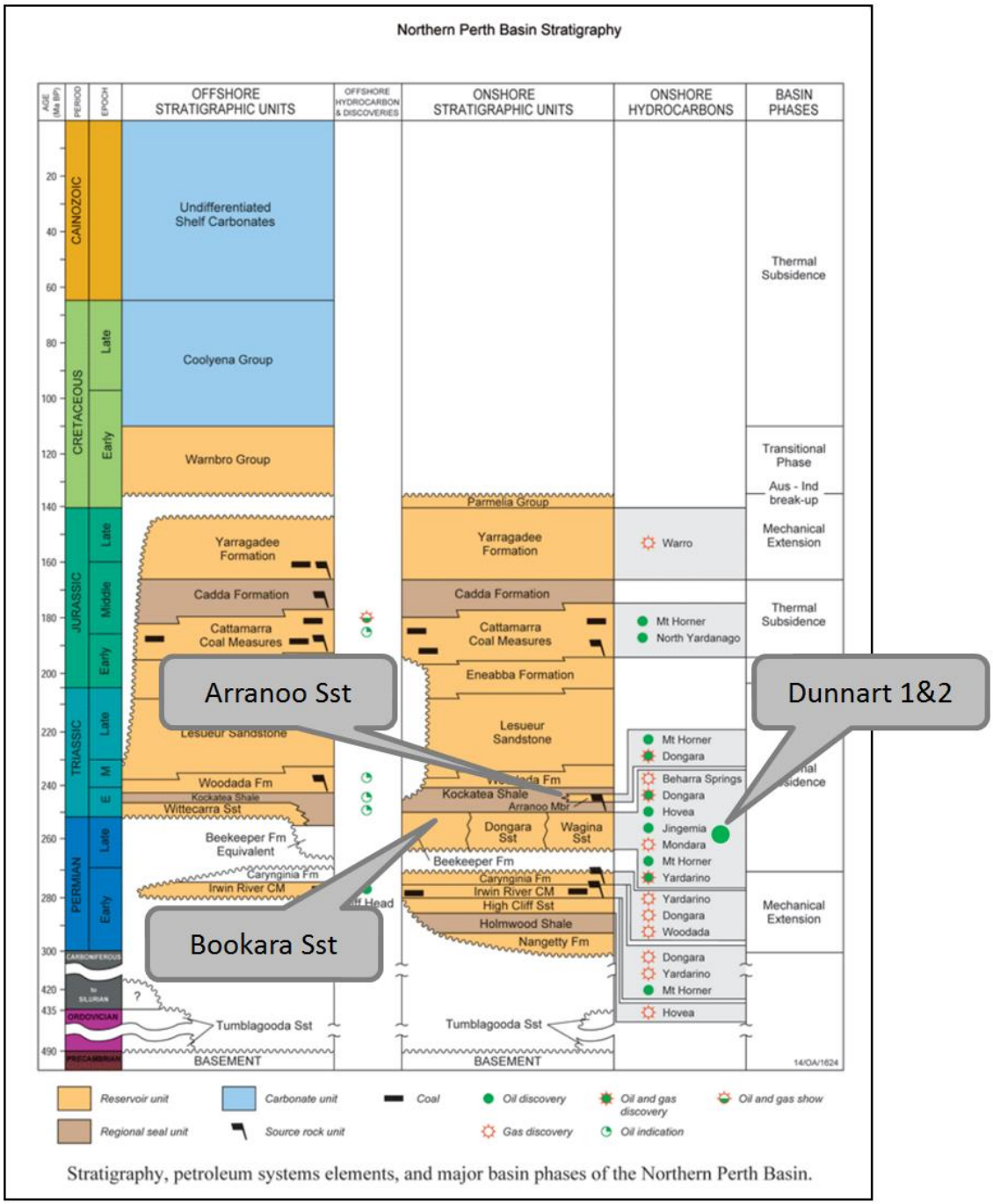


Figure 7-2: EP437 Prospect and Lead Location Map



Stratigraphy, petroleum systems elements, and major basin phases of the Northern Perth Basin.

Figure 7-3: Northern Perth Basin Stratigraphy

7.2. EP437 Prospects

7.2.1. Wye Knot

The Wye Knot prospect is a follow up to the Wye-1 well drilled in 1996 which tested gas at 4.4 MMscfd in the Bookara Sandstone and 2.4 MMscfd in the Arranoo Sandstone. Wye Knot is a downdip appraisal well opportunity looking for a possible oil leg. Evidence of an oil leg comes from good oil shows in these reservoirs indicating that gas may have displaced the oil downwards. An added complication was the high (300ppm)

H2S content in the gas from the Bookara Sandstone and the depletion on test in the Arranoo Sandstone. The prospect is small and extends across the permit boundary into permit L 7 R1. The reservoir, seal and gas source are proven by Wye-1 but the prospect is high risk for oil.

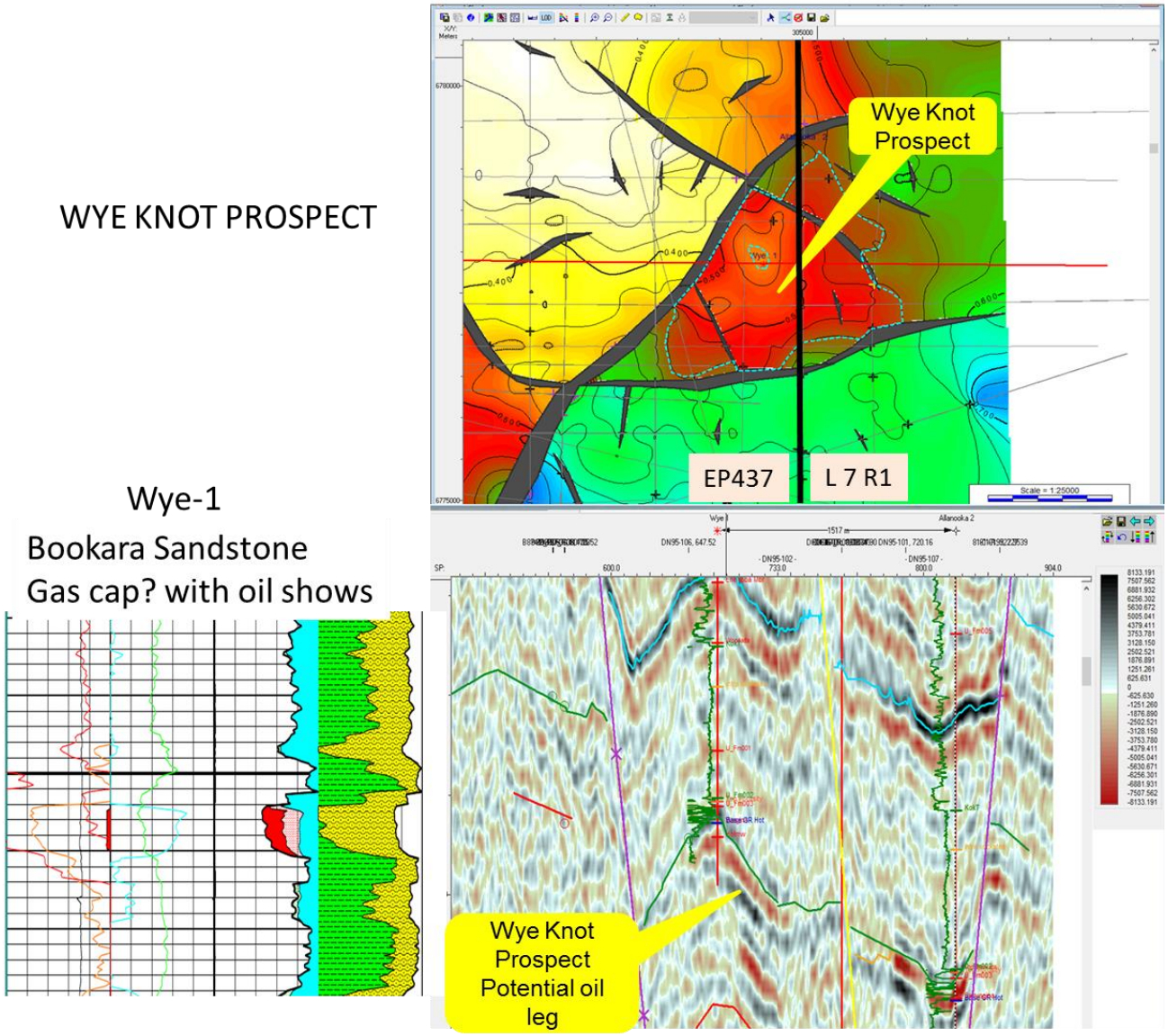


Figure 7-4: Wye Knot Prospect

7.2.2. Becos

The Becos prospect is a downthrown dip closure against an east-west fault that separates the Wye/Wye Knot structure from a dry down dip well, Allanooka-1 which tested water. The prospect is dependent on success of Wye Knot-1 finding oil in either the Bookara or Arranoo sandstones and relies on the concept that Allanooka-1 narrowly missed an oil column. The prospect is small and more than half of the area that it covers is outside the permit boundary. It is also high risk on oil charge, seal and trap.

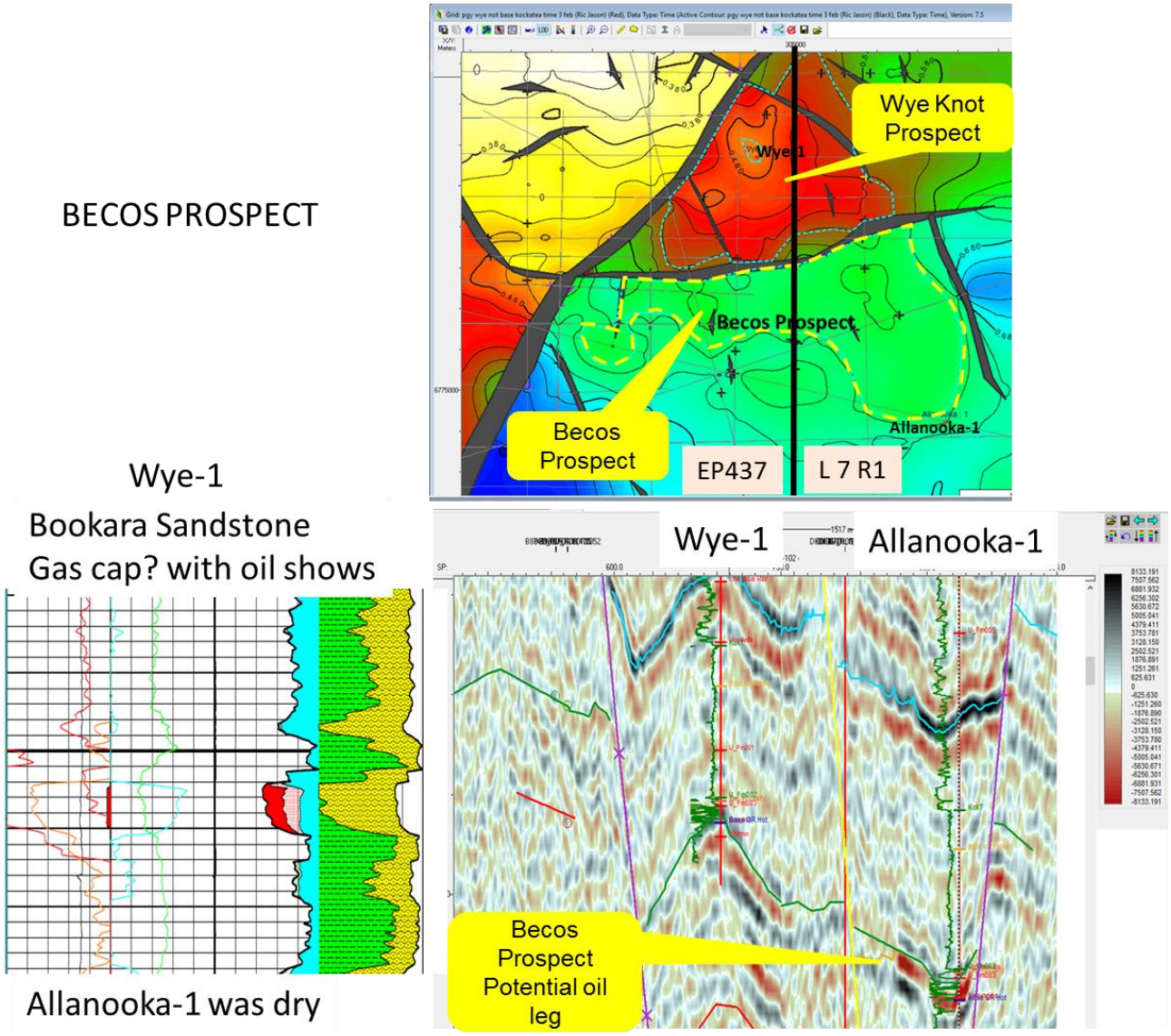


Figure 7-5: Becos Prospect

7.2.3. Conder South Prospect

The Conder South prospect is located south of Conder-1 which was drilled in 1988 and tested wet despite good oil shows in the Bookara Sandstone. The latter were at only 200m and likely to be biodegraded. Conder South is on a separate horst structure as mapped from the poor quality 2D seismic data. It is again small and extremely high risk on account of the shallowness of the target and the risk of lateral seal leakage.

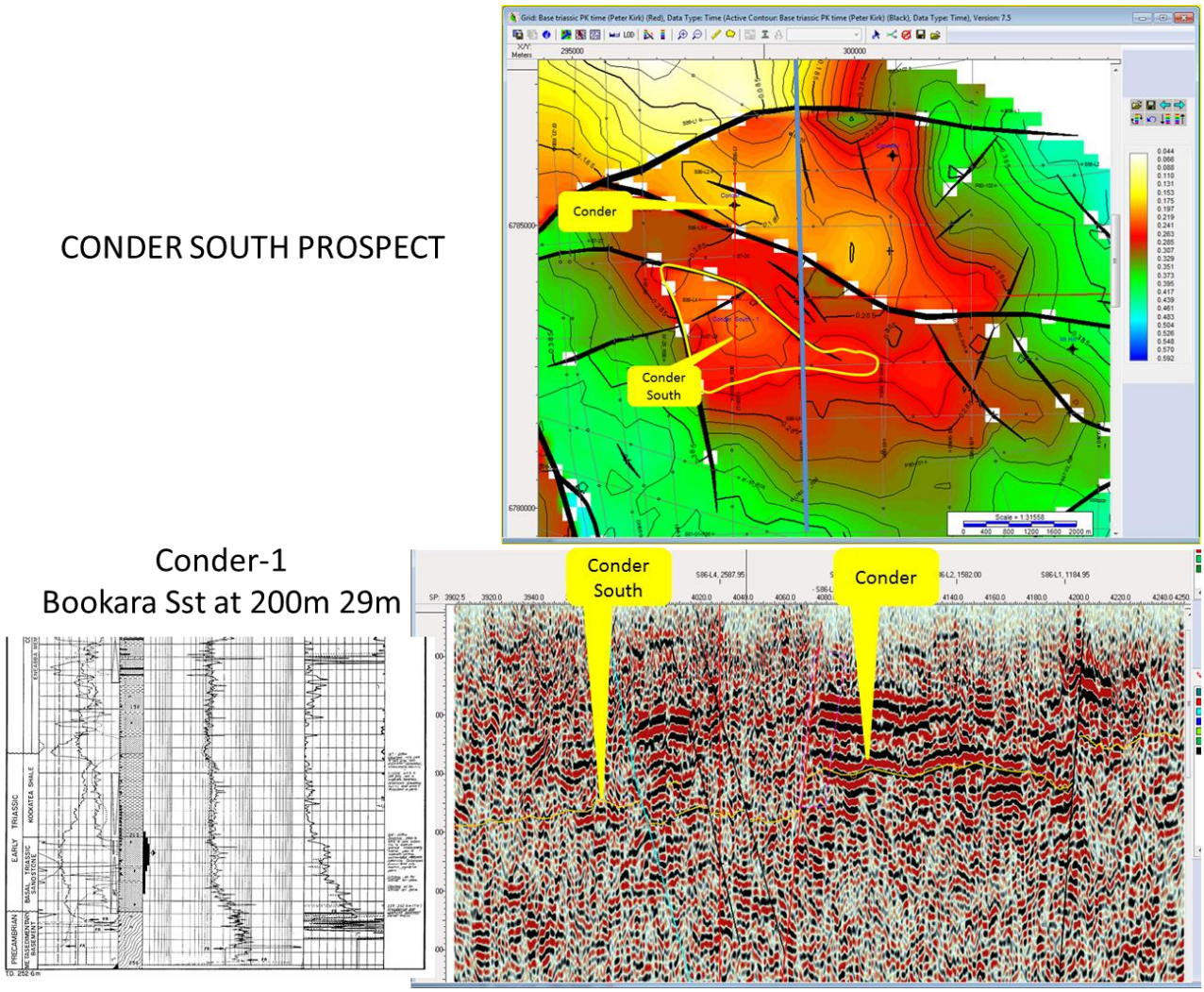


Figure 7-6: Conder South Prospect

7.3. EP437 Prospective Resources

Operator Key Petroleum Limited's assessment of prospective resources for the Wye Knot prospect are provided in Table 7-1 below. Key Petroleum has released these Prospective Resources for the Triassic Aranoo Sandstone in an ASX announcement on 19 December 2016. RISC has been unable to verify these prospective resources, however the range appears to capture likely size of prospect covering this area and the volumes are not significant to Pilot. The prospect is shallow and can be drilled at a low cost, with the Joint Venture having approved drilling of an exploration well during 2017.

Table 7-1: EP437 Prospective Resources for Wye Knot (Key Petroleum) as of 21st April 2017

Oil Prospects	Gross (100%) on block MMbbl			Net Pilot (13.058%) on block MMbbl			GPOS (%)
	Low	Best	High	Low	Best	High	
Wye Knot, Aranoo Sandstone	0.16	1.4	6.1	0.02	0.18	0.80	10%

1. Resources reported by Key Petroleum in an ASX release dated 19 December 2016 titled EP437 Work Programme and Budget Approved (http://www.keypetroleum.com.au/announcements/2016)
2. The prospective resources are unrisked. Prospective resources carry with them discovery and commercialisation risks.

7.4. Status of Committed Program

The EP437 permit was granted on the 6 June 2012 for a 5 year term and expires on 27 November 2019 due to extensions. The five year permit work programme details are given in Table 7-2. The permit is currently in Year 3 with a commitment to drill an exploration well in 2017. RISC has relied on government documentation of approvals and permit awards provided by Pilot to ascertain the permit status.

Table 7-2: EP437 Permit Details and Work programme

Permit	Operator	Interest	Status	Permit Expiry Date	Work Programme
EP437	Key Petroleum	Pilot 13.058% Key Pet 43.471% Rey Res 43.471%	Exploration Licence	27 November 2019	Year 1: Production test A$0.85 million Year 2: G&G studies A$0.2 million Year 3: 1 well A$1.5 million Year 4: G&G studies A$0.1 million Year 5: 1 well A$1.5 million

7.5. Exploration Program Costs

Exploration costs are low in EP437. Key Petroleum announced that a budget of A$1.9 million (US$1.44 million) has been approved by the Joint Venture which includes the drilling of the Wye Knot-1 well. The Joint Venture is going to apply a $200,000 Exploration Incentive Scheme grant from the Department of Mines and Petroleum against the cost of the well. Pilot is not attempting to farm this well cost out.

7.6. EP437 Valuation

RISC has used the potential value to Pilot of EP437 being farmed out to a third party who will pick up a proportion of future costs to explore the permit at a promote to their earned interest cost.

In the low case we have assumed that a farminee will pay a 1.15:1 carry of the full cost of the well (US$1.44 million). This values Pilot's 13.058% share at US$0.03 million.

In the mid case RISC has assumed Pilot farm out the well for a 1.25:1 carry on the same well cost. This values Pilot's share at US$0.05 million.

In the high case the carry on the well is increased to 1.75:1 valuing Pilot's equity at US$0.14 million.

8. Valuation

8.1. Methodology

The Pilot permits are all early stage exploration properties. RISC has therefore used notional farm-in terms by a farminee into the assets to estimate a fair value under the requirements of the VALMIN code and comparable transactions, where they exist. Valuation using an Expected Monetary Value (EMV) approach is not considered relevant for these assets due to their low level of maturity even where Contingent Resources are attributable to Pilot in WA-481-P. The value of these small Contingent Resources is reflected in the higher farmin promote for the mid value case for WA-481-P.

The values of the permits have been determined at low, mid and high values. As the low and high values of the exploration assets portfolio are derived by the arithmetic addition of the individual asset low and high values, respectively, they represent the possible extremes of the exploration value envelop. While farminees into the individual permits could value the assets at either end of the value range assessed, it is unlikely that potential buyers of the exploration asset portfolio would value all of the assets at either all of the low or all of the high estimated extremes. Their own assessments of individual permits will span the low, mid or high outcomes based on factors including: their strategic objectives and region or geological basin focus; assessment of an asset's prospectivity and associated geological risks; the fiscal and regulatory framework applicable to the asset; accessibility of commercialisation routes, including markets and infrastructure, for each asset; equity interests, operator capability and joint venture partners in each asset. RISC has determined the low and high values of the portfolio of exploration assets at an estimated one standard deviation from the total mid value of the portfolio.

8.2. Transaction value

Pilot acquired their interests in the contiguous EP 416 and EP480 permits and in EP 437 through transactions which provide the most relevant analogue transactions with which to value these current interests.

In September 2015, Pilot executed an agreement to farmin to Empire Oil & Gas (NL) permits EP 416 and 480. Under the terms of the agreement, Pilot paid A$0.45 million on satisfaction of regulatory requirements which occurred in 2016. In consideration, Pilot earned a 60% interest in each of the permits and assumed operatorship.

100% of WA-481-P was assigned over to Pilot from Murphy oil in July 2016 in return for a 10% Net Profit Interest on future production from discoveries that are made in the permit. Murphy Oil were in the process of withdrawing from the permit after drilling three unsuccessful high risk wells in the outboard area and saw little value in the shallow water exploration which Pilot is focused on and which, for a company of their small size, may indeed have significant value.

8.3. Notional Farm-in terms

In our experience, farm-in terms typically attract promote factors of 1:1 to 3:1 with potentially a reimbursement of past costs and/or bonus payments. The promote factors refer to the share of a farminor's costs that a farminee might carry. A promote factor of 1:1 implies that the farminee will only pay for its acquired interest share of specified future costs ("ground floor"); while a 2:1 promote indicates that the farminee will pay in addition to its acquired interest share of costs, an equal amount of the farminor's costs.

This implies a 100% uplift or premium to the farminor's equity share of the future exploration costs. The market value, therefore to the farminor, is the value of the share of its costs that are being carried by the farminee.

As an example in June 2014, Rey Resources farmed-in to EP 437, earning 43.47% by funding 86.94% of the Dunnart-2 well costs capped at A$1.7 million implying a 2:1 promote. In light of current market conditions, RISC considers a 1.75:1 promote the high end of the permit value with a mid and low-range value based on a 1.5:1 to a 1.25:1 promote respectively. The low end of the value range is supported by Pilot's November 2015 acquisition of Caracal's 13.058% interest for A$15,000 cash, 20 million shares and 20 million options.

8.4. Valuation summary

The Pilot Australian permits have been evaluated using the methods described in Section 2.2 and are summarised below:

Table 9-1: Valuation Summary

Exploration Assets	Equity Interest %	Gross Notional farm-in entry program US$M	Valuation (US$ million)			Comments
			Low	Mid	High	
WA-507-P	80%	Seismic costs $3.6 Drill one well well cost $25 mill (+30%)	2.9	10.0	15.0	Low value based on 2:1 carry on seismic costs. Mid and High values based respectively on 1.5:1 and 1.75:1 carries on Year 6 well (US$25 million)
WA-503-P	80%	Seismic costs $1.55 (including farmin equity uplift) Drill one well at $15 mill	0.6	1.2	9.0	Low and Mid values based respectively on 1.5:1 and 2:1 carries on seismic costs. High value based on 1.75:1 carry on 1 well (US$15 million)
WA-481-P	60%	Seismic reprocessing and inversion $0.65 mill Drill one well at $17 mill	1.2	5.1	7.7	Low case based on 4:1 carry on remaining G&G program US$0.65 million, Mid and High case based on 1.5:1 and 1.75:1 carries on well at US$17 million
EP416 & EP480	60%	G&G over 2 permits $0.75 mill Drill one well at $8 mill	0.7	1.2	3.6	Low Mid and High values based on 1.15:1, 1.25:1 and 1.75:1 carries on 1 well at $8 million
EP437	13.058%	Drill one well $1.44 mill	0.03	0.05	0.14	Low Mid and High values based on 1.15:1, 1.25:1 and 1.75:1 carries on 1 well at US$1.44 million. Low equivalent to Pilot's purchase of Caracal 13.058% interest.
Total Pilot Permit Value			5.4	17.6	35.4	
Pilot Early Stage Exploration Portfolio Valuation Range			**12.6**	**17.6**	**22.6**	Rounded to one standard deviation

RISC has recognised that the farmout market has remained soft and has lowered its expectations since March 2016 when we last reviewed the value of Pilot. We believe that exploration projects are very difficult to farmout at the traditional 2:1 carry for major expenditures such as wells and have set the maximum carry at 1.75:1 to reflect this. To be consistent we have also lowered the mid case to 1.25:1 except for WA-507-P where the scale of the prospects should attract a premium farmout to a major player and WA-481-P where proximity to infrastructure and existing contingent resources will help create a premium.

The low side case is generally related value or a carry on seismic and G&G costs which can attract higher premiums as it gives the incoming party the right to participate in drilling at their earned interest cost without a promote. RISC has also used a 1.15:1 farmin promote on the onshore well commitments in EP 416/480 and EP 437.

9. Declarations

9.1. Qualifications

RISC is an independent oil and gas advisory firm founded in 1994 to provide independent advice to companies associated with the oil and gas industry. We have completed over 1500 assignments in 68 countries for nearly 500 clients. Our services cover the entire range of the oil and gas business lifecycle and include:

- Oil and gas asset valuations, expert advice to banks for debt or equity finance;
- Exploration/Portfolio management;
- Field development studies and operations planning;
- Reserves assessment and certification, peer reviews;
- Gas market advice;
- Independent Expert/Expert Witness;
- Strategy and corporate planning.

The preparation of this report has been supervised by Mr Geoffrey Barker, RISC Partner. He has over thirty years of global experience in the upstream hydrocarbon industry, with extensive expertise in the areas of asset valuation, business strategies, evaluation of conventional and non-conventional petroleum (coal seam gas and tight gas), due diligence assessment for mergers, acquisitions and project finance requirements and reserves assessment/certification and preparation of Independent Technical Specialist reports. Mr. Barker is a Past Chairman of the SPE WA Section, a past member of the SPE International's Oil and Gas Reserves Committee 2007-2009, and is a co-author of the Guidelines for Application of the Petroleum Resources Management System published by the SPE in November 2011 (Chapter 8.5 Coal Bed Methane). Mr Barker is a Member of the Society of Petroleum Engineers (SPE), and holds a BSc (Chemistry), Melbourne University, 1980 and an M.Eng.Sc (Pet Eng), Sydney University, 1989 and is a qualified petroleum reserves and resources evaluator (QPPRE) as defined by ASX listing rules.

David Cliff, Head of Geoscience, prepared the majority of the report. David is a Petroleum Geologist with over 30 years of upstream experience, focused mainly on exploration in technical and management roles. He has worked for Australian and international companies, both large and small, from Woodside Petroleum to Bridge Oil. More recently David has held the position of Exploration Manager at Hardman Resources and Neon Energy giving him exposure to exploration in Africa and Southeast Asia respectively. He has also had experience as a resource stock analyst at BBY and held the role of Managing Director at Gas Link Global. David is a past President of PESA, a long-time member of AAPG and a graduate of the Australian Institute of Company Directors. David has a BSc in Geology from the University of Exeter, 1980.

9.2. VALMIN Code and ASIC Regulatory Guides

This Report has been prepared by RISC. This Report has been prepared in accordance with the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports 2015 Edition ("The VALMIN Code") as well as the Australian Securities and Investment Commission (ASIC) Regulatory Guides 111 and 112.

9.3. Petroleum Resources Management System

In the preparation of this Report, RISC has complied with the guidelines and definitions of the Petroleum Resources Management System approved by the Board of the Society of Petroleum Engineers in 2007 (PRMS).

9.4. Report to be presented in its entirety

RISC has been advised by Pilot that this report will be presented in its entirety without summarisation.

9.5. Independence

This report does not give and must not be interpreted as giving, an opinion, recommendation or advice on a financial product within the meaning of section 766B of the Corporations Act 2001 or section 12BAB of the Australian Securities and Investments Commission Act 2001.

RISC is not operating under an Australian financial services licence in providing this report.

In accordance with regulation 7.6.01(1)(u) of the Corporations Regulation 2001 and clause 6.3 of the VALMIN Code. RISC makes the following disclosures:

- RISC is independent with respect to Pilot and BDO Corporate Finance and confirms that there is no conflict of interest with any party involved in the assignment;
- Under the terms of engagement between RISC and Pilot for the provision of this report RISC will receive a time-based fee, with no part of the fee contingent on the conclusions reached, or the content or future use of this report, or the success or failure of the reason for which the report was commissioned. Except for this fee, RISC has not received and will not receive any pecuniary or other benefit whether direct or indirect for or in connection with the preparation of this report;
- Neither RISC nor any of its personnel involved in the preparation of this report have any material interest in Pilot or in any of the properties described herein;
- RISC has not provided professional services to Pilot in the past two years apart from providing this and a similar report in March 2016 and a prospective resources audit of the Leschenault Prospect in EP 416 and EP 480 in October 2016;
- RISC has not provided advice to Pilot specifically in relation to the Proposed Transaction.

9.6. Limitations

The assessment of petroleum assets is subject to uncertainty because it involves judgments on many variables that cannot be precisely assessed, including reserves, future oil and gas production rates, the costs associated with producing these volumes, access to product markets, product prices and the potential impact of fiscal/regulatory changes.

The statements and opinions attributable to RISC are given in good faith and in the belief that such statements are neither false nor misleading. In carrying out its tasks, RISC has considered and relied upon information obtained from Pilot as well as information in the public domain.

The information provided to RISC has included both hard copy and electronic information supplemented with discussions between RISC and key Pilot staff.

Whilst every effort has been made to verify data and resolve apparent inconsistencies, we believe our review and conclusions are sound, but neither RISC nor its servants accept any liability, except any liability which cannot be excluded by law, for its accuracy, nor do we warrant that our enquiries have revealed all of the matters, which an extensive examination may disclose.

Under the VALMIN Code 2015 Edition, Clause 2, RISC has acted as the Specialist in determining the status of the permit titles and has found that all the titles have been properly assigned to Pilot and the commitments shown above are correct. RISC has relied on permit grant or renewal documents and variation approvals and change of ownership approvals from the various Government bodies to ascertain the permit status. These documents were supplied by Pilot and are the generally accepted forms of proof that the titles are in good standing and the ownership is verified. RISC has not made independent enquiries of the various Government bodies.

RISC has not audited the opening balances at the economic evaluation date of past recovered and unrecovered development and exploration costs, undepreciated past development costs and tax losses.

We believe our review and conclusions are sound but no warranty of accuracy or reliability is given to our conclusions.

Our review was carried out only for the purpose referred to above and may not have relevance in other contexts.

This report was substantially completed by 18 May 2017. We are not aware of any changes since that date that would have a material impact on the values and opinions contained within this report.

9.7. Consent

RISC has consented to this report, in the form and context in which it appears, being included in the Independent Expert's Report prepared by BDO Corporate Finance for Pilot. Neither the whole nor any part of this report nor any reference to it may be included in or attached to any other document, circular, resolution, letter or statement without the prior consent of RISC.

This Report is authorised for release by Mr. Geoffrey Barker, RISC Partner dated 26 May 2017.

Geoffrey J Barker
Partner

10. List of terms

The following lists, along with a brief definition, abbreviated terms that are commonly used in the oil and gas industry and which may be used in this report.

Term	Definition
1P	Equivalent to Proved reserves or Proved in-place quantities, depending on the context.
1Q	1st Quarter
2P	The sum of Proved and Probable reserves or in-place quantities, depending on the context.
2Q	2nd Quarter
2D	Two Dimensional
3D	Three Dimensional
4D	Four Dimensional – time lapsed 3D in relation to seismic
3P	The sum of Proved, Probable and possible Reserves or in-place quantities, depending on the context.
3Q	3rd Quarter
4Q	4th Quarter
AFE	Authority for Expenditure
Bbl	US Barrel
BBL/D	US Barrels per day
BCF	Billion (109) cubic feet
BCM	Billion (109) cubic meters
BFPD	Barrels of fluid per day
BOPD	Barrels of oil per day
BTU	British Thermal Units
BOEPD	US barrels of oil equivalent per day
BWPD	Barrels of water per day
°C	Degrees Celsius
Capex	Capital expenditure
CAPM	Capital asset pricing model
CGR	Condensate Gas Ratio – usually expressed as bbl/MMscf
Contingent Resources	Those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects but which are not currently considered to be commercially recoverable due to one or more contingencies. Contingent Resources are a class of discovered recoverable resources as defined in the SPE-PRMS.
CO_2	Carbon dioxide
CP	Centipoise (measure of viscosity)
CPI	Consumer Price Index
DEG	Degrees
DHI	Direct hydrocarbon indicator
Discount Rate	The interest rate used to discount future cash flows into a dollars of a reference date
DST	Drill stem test
E&P	Exploration and Production
EG	Gas expansion factor. Gas volume at standard (surface) conditions / gas volume at reservoir conditions (pressure & temperature)

Term	Definition
EIA	US Energy Information Administration
EMV	Expected Monetary Value
EOR	Enhanced Oil Recovery
ESP	Electric submersible pump
EUR	Economic ultimate recovery
Expectation	The mean of a probability distribution
F	Degrees Fahrenheit
FDP	Field Development Plan
FEED	Front End Engineering and design
FID	Final investment decision
FM	Formation
FPSO	Floating Production Storage and offtake unit
FWL	Free Water Level
FVF	Formation volume factor
GIIP	Gas Initially In Place
GJ	Giga (109) joules
GOC	Gas-oil contact
GOR	Gas oil ratio
GPOS	Probability of Geological success
GRV	Gross rock volume
GSA	Gas sales agreement
GTL	Gas To Liquid(s)
GWC	Gas water contact
H2S	Hydrogen sulphide
HHV	Higher heating value
ID	Internal diameter
IRR	Internal Rate of Return is the discount rate that results in the NPV being equal to zero.
JV(P)	Joint Venture (Partners)
Kh	Horizontal permeability
km2	Square kilometres
Krw	Relative permeability to water
Kv	Vertical permeability
kPa	Kilo (thousand) Pascals (measurement of pressure)
Mstb/d	Thousand Stock tank barrels per day
LIBOR	London inter-bank offered rate
LNG	Liquefied Natural Gas
LTBR	Long-Term Bond Rate
m	Metres
MDT	Modular dynamic (formation) tester
mD	Millidarcies (permeability)
MJ	Mega (106) Joules
MMbbl	Million US barrels

Term	Definition
MMscf(d)	Million standard cubic feet (per day)
MMbbl	Million US stock tank barrels
MOD	Money of the Day (nominal dollars) as opposed to money in real terms
MOU	Memorandum of Understanding
Mscf	Thousand standard cubic feet
Mstb	Thousand US stock tank barrels
MPa	Mega (106) pascal (measurement of pressure)
mss	Metres subsea
MSV	Mean Success Volume
mTVDss	Metres true vertical depth subsea
MW	Megawatt
NPV	Net Present Value (of a series of cash flows)
NTG	Net to Gross (ratio)
ODT	Oil down to
OGIP	Original Gas In Place
OOIP	Original Oil in Place
Opex	Operating expenditure
OWC	Oil-water contact
P90, P50, P10	90%, 50% & 10% probabilities respectively that the stated quantities will be equalled or exceeded. The P90, P50 and P10 quantities correspond to the Proved (1P), Proved + Probable (2P) and Proved + Probable + possible (3P) confidence levels respectively.
PBU	Pressure build-up
PJ	Peta (1015) Joules
GPOS	Probability of Success
Possible Reserves	As defined in the SPE-PRMS, an incremental category of estimated recoverable volumes associated with a defined degree of uncertainty. possible Reserves are those additional reserves which analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus possible (3P) which is equivalent to the high estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate.
Probable Reserves	As defined in the SPE-PRMS, an incremental category of estimated recoverable volumes associated with a defined degree of uncertainty. Probable Reserves are those additional Reserves that are less likely to be recovered than Proved Reserves but more certain to be recovered than possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.
Prospective Resources	Those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations as defined in the SPE-PRMS.
Proved Reserves	As defined in the SPE-PRMS, an incremental category of estimated recoverable volumes associated with a defined degree of uncertainty Proved Reserves are those quantities of petroleum, which by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable, from a given date forward, from known reservoirs and under defined economic conditions, operating methods, and government regulations. If deterministic methods are used, the term reasonable certainty is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate. Often referred to as 1P, also as “Proven”.
PSC	Production Sharing Contract

Term	Definition
PSDM	Pre-stack depth migration
PSTM	Pre-stack time migration
psia	Pounds per square inch pressure absolute
p.u.	Porosity unit e.g. porosity of 20% +/- 2 p.u. equals a porosity range of 18% to 22%
PVT	Pressure, volume & temperature
QA/QC	Quality Assurance/ Control
rb/stb	Reservoir barrels per stock tank barrel under standard conditions
RFT	Repeat Formation Test
Real Terms (RT)	Real Terms (in the reference date dollars) as opposed to Nominal Terms of Money of the Day
Reserves	RESERVES are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must further satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of the evaluation date) based on the development project(s) applied. Reserves are further categorised in accordance with the level of certainty associated with the estimates and may be sub-classified based on project maturity and/or characterized by development and production status.
RT	Measured from Rotary Table or Real Terms, depending on context
SC	Service Contract
scf	Standard cubic feet (measured at 60 degrees F and 14.7 psia)
Sg	Gas saturation
Sgr	Residual gas saturation
SRD	Seismic reference datum lake level
SPE	Society of Petroleum Engineers
SPE-PRMS	Petroleum Resources Management System, approved by the Board of the SPE March 2007 and endorsed by the Boards of Society of Petroleum Engineers, American Association of Petroleum Geologists, World Petroleum Council and Society of Petroleum Evaluation Engineers.
s.u.	Fluid saturation unit. e.g. saturation of 80% +/- 10 s.u. equals a saturation range of 70% to 90%
stb	Stock tank barrels
STOIIP	Stock Tank Oil Initially In Place
Sw	Water saturation
TCM	Technical committee meeting
Tcf	Trillion (1012) cubic feet
TJ	Tera (1012) Joules
TLP	Tension Leg Platform
TRSSV	Tubing retrievable subsurface safety valve
TVD	True vertical depth
US$	United States dollar
US$ million	Million United States dollars
WACC	Weighted average cost of capital
WHFP	Well Head Flowing Pressure
Working interest	A company's equity interest in a project before reduction for royalties or production share owed to others under the applicable fiscal terms.
WPC	World Petroleum Council
WTI	West Texas Intermediate Crude Oil